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2  <html xmlns="http://www.w3.org/1999/xhtml">
3      <head xmlns:xi="http://www.w3.org/2001/XInclude">
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isZebra:true;" />
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/><meta name="ncbi_stat" content="false" /><meta name="ncbi_hitstat"
content="false" />
7
8
9      <!-- title -->
10     <title>Aqp2 aquaporin 2 (collecting duct) [Rattus norvegicus] - Gene
result</title>
11
12     <!-- Common JS and CSS -->
13
14
15         <script type="text/javascript">
16             var ncbi_startTime = new Date();
17         </script>
18
19         <script type="text/javascript">
20             <!--
21             var PopUpMenu2_GlobalConfig = [
22                 ["UseThisGlobalConfig","yes"]
23             ]
24             //-->
25         </script>
26         <script type="text/javascript"
src="/core/jig/1.4/js/jig.min.js"></script>
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xml:base="http://127.0.0.1/sites/static/header_footer/" /><link
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href="/portal/portal3rc.fcgi/36616/css/31982.css" media="print"
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30 <link rel="shortcut icon" href="http://www.ncbi.nlm.nih.gov/favicon.ico" /><meta
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type="text/javascript"><!--
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128 <a href="http://www.ncbi.nlm.nih.gov/corehtml/query/static/unsupported-
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href="/journals" title="Information on journals cited by NCBI records">Journals
Database</a></li><li><a href="/mesh" title="Controlled vocabulary for
MEDLINE">MeSH Database</a></li><li><a href="/pubmed" title="Biomedical literature
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articles">PubMed Central</a></li><li><a href="/guide/literature/">All Literature
Resources...</a></li></ul></li><li><a href="#">DNA & RNA</a><ul class="actual-
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submissions of nucleotide sequences">BankIt</a></li><li><a
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a local computer">BLAST (Stand-alone)</a></li><li><a href="/Genbank/" title="DNA
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href="/nuccore" title="Nucleotide sequence data in GenBank and RefSeq">Nucleotide
Database</a></li><li><a href="/popset" title="Sets of nucleotide sequences
representing a population">PopSet</a></li><li><a href="/RefSeq/" title="Curated
nucleotide and protein sequences produced by NCBI">Reference Sequence
(RefSeq)</a></li><li><a href="/Traces/sra/sra.cgi?" title="Database of sequences
reads from next generation sequencing technologies">Sequence Read Archive
(SRA)</a></li><li><a href="/Traces/trace.cgi" title="DNA chromatograms, base
calls, and quality estimates for single-pass reads">Trace Archive</a></li><li><a
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a local computer">BLAST (Stand-alone)</a></li><li><a
href="/sutils/static/blinkhelp.html" title="Pre-computed reports showing proteins
with similar sequences">BLAST Link (BLink)</a></li><li><a
href="/Structure/cdd/wrpsb.cgi" title="Locates conserved domains within a protein
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sequence">CD-Search</a></li><li><a href="/Genbank/" title="DNA and RNA sequences
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href="/sutils/static/prosplign/prosplign.html" title="Tool for aligning proteins
to genomic DNA">ProSplign</a></li><li><a href="/protein" title="Protein sequence
data">Protein</a></li><li><a href="/proteinclusters" title="Clusters of related
proteins from prokaryotes and organelles">Protein Clusters</a></li><li><a
href="/RefSeq/" title="Curated nucleotide and protein sequences produced by
NCBI">Reference Sequence (RefSeq)</a></li><li><a href="/guide/proteins/">All
Proteins Resources...</a></li></ul></li><li><a href="#">Sequence Analysis</a><ul
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sequence similarity">BLAST</a></li><li><a
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a local computer">BLAST (Stand-alone)</a></li><li><a
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target specificity using BLAST.">Primer-BLAST</a></li><li><a
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to genomic DNA">ProSplign</a></li><li><a href="/sutils/splign" title="Tool for
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analysis/">All Sequence Analysis Resources...</a></li></ul></li><li><a
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associated transcripts and proteins">Gene</a></li><li><a href="/gds"
title="Curated collections of gene expression data sets">Gene Expression Omnibus
(GEO) Datasets</a></li><li><a href="/geo" title="Database of gene expression
Profiles for individual sequences">Gene Expression Omnibus (GEO)
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for analyzing sequence data">Genome Workbench</a></li><li><a href="/homologene"
title="Sets of homologous eukaryotic genes">HomoloGene</a></li><li><a
href="/mapview/" title="Tool for searching, viewing and downloading genomic maps
and related data">Map Viewer</a></li><li><a href="/omim" title="Database of human
genes and genetic disorders">Online Mendelian Inheritance in Man
(OMIM)</a></li><li><a href="/unigene" title="Gene-centered clusters of
transcripts and ESTs">UniGene</a></li><li><a href="/guide/genes-expression/">All
Genes & Expression Resources...</a></li></ul></li><li><a href="#">Genomes &
Maps</a><ul class="actual-resources-submenu genomes-maps"><li><a href="/dbvar"
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and related data">Map Viewer</a></li><li><a href="/nucore" title="Nucleotide
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href="/Traces/sra/sra.cgi?" title="Database of sequences reads from next
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Resources...</a></li></ul></li><li><a href="#">Domains & Structures</a><ul
class="actual-resources-submenu domains-structures"><li><a
href="/Structure/CN3D/cn3d.shtml" title="Program for viewing 3D structures and
alignments">Cn3D</a></li><li><a href="/cdd" title="Database of conserved protein
domains represented by multiple sequence alignments">Conserved Domain Database
(CDD)</a></li><li><a href="/Structure/cdd/wrpsb.cgi" title="Locates conserved
domains within a protein sequence">CD-Search</a></li><li><a href="/sites/entrez?
db=structure" title="Database of 3D macromolecular structures derived from
PDB">Structure (Molecular Modeling Database)</a></li><li><a
href="/Structure/VAST/vast.html" title="Tool that generates 3D structural
alignments">Vector Alignment Search Tool (VAST)</a></li><li><a
href="/guide/domains-structures/">All Domains & Structures
Resources...</a></li></ul></li><li><a href="#">Genetics & Medicine</a><ul
class="actual-resources-submenu genetics-medicine"><li><a href="/books"
title="Online biomedical books">Bookshelf</a></li><li><a href="/gap"
title="Genotype/Phenotype association studies">Database of Genotypes and
Phenotypes (dbGaP)</a></li><li><a href="/genomes/FLU/" title="Data from the NIAID
Influenza Genome Sequencing Project">Influenza Virus</a></li><li><a
href="/mapview/" title="Tool for searching, viewing and downloading genomic maps
and related data">Map Viewer</a></li><li><a href="/omim" title="Database of human
genes and genetic disorders">Online Mendelian Inheritance in Man
(OMIM)</a></li><li><a href="/pubmed" title="Biomedical literature
abstracts">PubMed</a></li><li><a href="/pmc" title="Free, full-text
articles">PubMed Central</a></li><li><a href="/guide/genetics-medicine/">All
Genetics & Medicine Resources...</a></li></ul></li><li><a
href="#">Taxonomy</a><ul class="actual-resources-submenu taxonomy"><li><a
href="/taxonomy" title="The NCBI taxonomy tree in Entrez">Taxonomy</a></li><li><a
href="/Taxonomy/Browser/wwwtax.cgi?mode=Root" title="Displays and links Entrez
data to each taxonomic node">Taxonomy Browser</a></li><li><a
href="/Taxonomy/CommonTree/wwwcmt.cgi" title="Creates custom taxonomic
trees">Taxonomy Common Tree</a></li><li><a href="/guide/taxonomy/">All Taxonomy
Resources...</a></li></ul></li><li><a href="#">Data & Software</a><ul
class="actual-resources-submenu data-software"><li><a
href="/Structure/CN3D/cn3d.shtml" title="Program for viewing 3D structures and
alignments">Cn3D</a></li><li><a href="/sutils/static/prosplign/prosplign.html"
title="Tool for aligning proteins to genomic DNA">ProSplign</a></li><li><a
href="/sutils/splign" title="Tool for aligning transcripts to genomic
DNA">Splign</a></li><li><a href="/guide/data-software/">All Data & Software
Resources...</a></li></ul></li><li><a href="#">Training & Tutorials</a><ul
class="actual-resources-submenu training-tutorials"><li><a href="/Education/"
title="Central page providing links to tutorials and training materials">NCBI
Education Page</a></li><li><a href="/books/bv.fcgi?rid=handbook.TOC&depth=2"
title="Introductory articles about NCBI resources">NCBI Handbook</a></li><li><a
href="/books/bv.fcgi?rid=helpbook.TOC" title="Online, searchable help
documentation">NCBI Help Manual</a></li><li><a href="/About/primer/" title="An
introduction to bioinformatics at NCBI">Science Primer</a></li><li><a
href="/guide/training-tutorials/">All Training & Tutorials
Resources...</a></li></ul></li><li><a href="#">Homology</a><ul class="actual-
resources-submenu homology"><li><a href="http://blast.ncbi.nlm.nih.gov/"
title="Tool for finding local regions of sequence

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similarity">BLAST</a></li><li><a href="http://blast.ncbi.nlm.nih.gov/Blast.cgi?
CMD=Web&PAGE_TYPE=BlastDocs&DOC_TYPE=Download" title="BLAST programs for
a local computer">BLAST (Stand-alone)</a></li><li><a href="/cdd" title="Database
of conserved protein domains represented by multiple sequence
alignments">Conserved Domain Database (CDD)</a></li><li><a
href="/sutils/protmap.cgi" title="Maps proteins from a COG/VOG back to its
genome">Genome ProtMap</a></li><li><a href="/homologene" title="Sets of
homologous eukaryotic genes">HomoloGene</a></li><li><a href="/proteinclusters"
title="Clusters of related proteins from prokaryotes and organelles">Protein
Clusters</a></li><li><a href="/guide/homology/">All Homology
Resources...</a></li></ul></li><li><a href="#">Small Molecules</a><ul
class="actual-resources-submenu small-molecules"><li><a href="/pcassay"
title="Contributed bioactivity data for PubChem Substances">PubChem
BioAssay</a></li><li><a href="/pccompound" title="Unique, standardized chemical
structures">PubChem Compound</a></li><li><a
href="http://pubchem.ncbi.nlm.nih.gov/search/search.cgi" title="Searches PubChem
Compound by chemical structure">PubChem Structure Search</a></li><li><a
href="/pcsubstance" title="Provides information on the biological activities of
small molecules.">PubChem Substance</a></li><li><a href="/guide/small-
molecules/">All Small Molecules Resources...</a></li></ul></li><li><a
href="#">Variation</a><ul class="actual-resources-submenu variation"><li><a
href="/dbvar" title="A database of genomic structural variation">Database of
Genomic Structural Variation (dbVar)</a></li><li><a href="/gap"
title="Genotype/Phenotype association studies">Database of Genotypes and
Phenotypes (dbGaP)</a></li><li><a href="/snp" title="Database of nucleotide
sequence polymorphisms">Database of Single Nucleotide Polymorphisms
(dbSNP)</a></li><li><a href="http://www.ncbi.nlm.nih.gov/projects/SNP" title="The
SNP database tools page provides links to the general submission guidelines and
to the submission handle request.">SNP Submission Tool</a></li><li><a
href="/guide/variation/">All Variation Resources...</a></li></ul></li><li>
id="all-howtos-menu" class="topmenu ui-helper-reset ui-ncbimenu-item-first"><a
class="ui-ncbimenu-first-link-has-submenu ui-ncbimenu-link-first topanchor"
href="#">How To</a><ul id="howto-submenu"><li><a href="/guide/all/howto/">All How
To</a></li><li><a href="/guide/literature/howto/">Literature</a></li><li><a
href="/guide/dna-rna/howto/">DNA & RNA</a></li><li><a
href="/guide/proteins/howto/">Proteins</a></li><li><a href="/guide/sequence-
analysis/howto/">Sequence Analysis</a></li><li><a href="/guide/genes-
expression/howto/">Genes & Expression</a></li><li><a href="/guide/genomes-
maps/howto/">Genomes & Maps</a></li><li><a href="/guide/domains-
structures/howto/">Domains & Structures</a></li><li><a href="/guide/genetics-
medicine/howto/">Genetics & Medicine</a></li><li><a
href="/guide/taxonomy/howto/">Taxonomy</a></li><li><a href="/guide/data-
software/howto/">Data & Software</a></li><li><a href="/guide/training-
tutorials/howto/">Training & Tutorials</a></li><li><a
href="/guide/homology/howto/">Homology</a></li><li><a href="/guide/small-
molecules/howto/">Small Molecules</a></li><li><a
href="/guide/variation/howto/">Variation</a></li></ul></li><li>
class="offscreen_noflow ui-ncbimenu-item-skip access"><a href="#maincontent"
title="Skip to the content" tabindex="0" accesskey="3">Skip to main
content</a></li><li class="offscreen_noflow ui-ncbimenu-item-skip
access"><a href="#navcontent" title="Skip to the navigation" tabindex="0"
accesskey="4">Skip to
navigation</a></li><li class="offscreen_noflow ui-ncbimenu-item-
skip access"><a href="/sites/myncbi/about/accesskeys" title="About My NCBI
Accesskeys" tabindex="0" accesskey="0">About NCBI Accesskeys</a></li></ul><div
class="myncbi"><a href="/sites/myncbi/" title="My NCBI" id="myncbiusername"
style="display: none;"></a><a href="/sites/myncbi/" title="My NCBI">My NCBI</a><a

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href="/sites/myncbi/" title="Sign in" id="sign_in">Sign In</a><a
href="/sites/myncbi/signout/" title="Sign Out" id="sign_out" style="display:
none;">Sign Out</a><script type="text/javascript">
135 var c = jQuery.cookie('WebCubbyUser'); lre = /.logged-in=(\w*);.*/; ure =
/.my-name=(\w*);.*/;
136 if(c){ l = lre.exec( c ); if(l[1] === 'true'){ u = ure.exec( c );
jQuery("#myncbiusername").text(u[1]).show(); jQuery("#sign_in").hide();
jQuery("#sign_out").show(); } }
137     </script></div></div>
138
139     <div class="header">
140     <!-- logo -->
141     <div class="res_logo">
142         <h1 class="res_name"><a href="/gene">Entrez Gene</a></h1>
143         <h2 class="res_tagline">Genes and mapped phenotypes</h2>
144     </div>
145     <!-- SearchBar -->
146     <div class="search"><span class="tr"><span class="tl"></span></span><span
class="br"><span class="bl"></span></span><span class="tr2"></span><div
class="search_top"><label for="search_term">Search:</label><select
name="EntrezSystem2.PEntrez.Gene.Gene_SearchBar.SearchResourceList" sid="1"
id="database"><option value="/sites/gquery" resource="gquery">All
Databases</option><option value="/pubmed"
resource="pubmed">PubMed</option><option value="/protein"
resource="protein">Protein</option><option value="/nuccore"
resource="nuccore">Nucleotide</option><option value="/nucgss"
resource="nucgss">GSS</option><option value="/nucest"
resource="nucest">EST</option><option value="/sites/entrez?db=structure"
resource="structure">Structure</option><option value="/sites/entrez?db=genome"
resource="genome">Genome</option><option value="/biosystems"
resource="biosystems">BioSystems</option><option value="/books"
resource="books">Books</option><option value="/cancerchromosomes"
resource="cancerchromosomes">CancerChromosomes</option><option value="/cdd"
resource="cdd">Conserved Domains</option><option value="/gap"
resource="gap">dbGaP</option><option value="/dbvar"
resource="dbvar">dbVar</option><option value="/domains" resource="domains">3D
Domains</option><option value="/epigenomics"
resource="epigenomics">Epigenomics</option><option selected="selected"
value="gene" resource="gene">Gene</option><option value="/genomeprj"
resource="genomeprj">Genome Project</option><option value="/sites/entrez?
db=gensat" resource="gensat">GENSAT</option><option value="/sites/entrez?db=geo"
resource="geo">GEO Profiles</option><option value="/gds" resource="gds">GEO
DataSets</option><option value="/homologene"
resource="homologene">HomoloGene</option><option value="/journals"
resource="journals">Journals</option><option value="/mesh"
resource="mesh">MeSH</option><option value="/ncbisearch"
resource="ncbisearch">NCBI Web Site</option><option value="/nlmcatalog"
resource="nlmcatalog">NLM Catalog</option><option value="/omia"
resource="omia">OMIA</option><option value="/omim"
resource="omim">OMIM</option><option value="/pepdome"
resource="pepdome">Peptidome</option><option value="/pmc"
resource="pmc">PMC</option><option value="/popset"
resource="popset">PopSet</option><option value="/probe"
resource="probe">Probe</option><option value="/proteinclusters"
resource="proteinclusters">Protein Clusters</option><option value="/pcassay"
resource="pcassay">PubChem BioAssay</option><option value="/pccompound"
resource="pccompound">PubChem Compound</option><option value="/pcsubstance"

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resource="pcsubstance">PubChem Substance</option><option value="/snp"
resource="snp">SNP</option><option value="/sra"
resource="sra">SRA</option><option value="/taxonomy"
resource="taxonomy">Taxonomy</option><option value="/toolkit"
resource="toolkit">ToolKit</option><option value="/toolkitall"
resource="toolkitall">ToolKitAll</option><option value="/unigene"
resource="unigene">UniGene</option><option value="/unists"
resource="unists">UniSTS</option></select></div><div class="search_bottom"><input
name="EntrezSystem2.PEntrez.Gene.Gene_SearchBar.Term" sid="1" type="text"
id="search_term" value="" title="Search Gene" cmd="Go" class="jig-
ncbiaautocomplete"
config="isEnabled:false,disableUrl:'EntrezSearchBarAutoComplCtrl'"
autocomplete="off" suggest="true" /><button
name="EntrezSystem2.PEntrez.Gene.Gene_SearchBar.Search" sid="1" id="search"
class="button_search" cmd="go">Search</button><button
name="EntrezSystem2.PEntrez.Gene.Gene_SearchBar.Clear" sid="1" id="Clear"
class="button_clear">Clear</button></div><div class="search_extras"><ul
class="inline_list"><li><a
name="EntrezSystem2.PEntrez.Gene.Gene_SearchBar.LimitsLink" sid="1"
onclick="return false;" href="/gene/limits"
id="EntrezSystem2.PEntrez.Gene.Gene_SearchBar.LimitsLink">Limits</a></li><li><a
name="EntrezSystem2.PEntrez.Gene.Gene_SearchBar.Advanced" sid="1" onclick="return
false;" href="/gene/advanced"
id="EntrezSystem2.PEntrez.Gene.Gene_SearchBar.Advanced">Advanced
search</a></li><li><a name="Help"
href="http://www.ncbi.nlm.nih.gov/bookshelf/br.fcgi?
book=helpgene&part=EntrezGene" target="_blank"
id="Help">Help</a></li></ul><div id="rss_menu" class="rss_menu
tabPopper"><fieldset><legend>RSS Settings</legend><ul><li><span>Search:
</span></li><li><label for="rss_results">Number of items
displayed:</label><select
name="EntrezSystem2.PEntrez.Gene.Gene_SearchBar.FeedLimit" sid="1"
id="rss_results"><option>5</option><option>10</option><option
selected="selected">15</option><option>20</option><option>50</option><option>100<
/option></select></li><li><label for="rss_name">Feed name:</label><input
name="EntrezSystem2.PEntrez.Gene.Gene_SearchBar.FeedName" sid="1" type="text"
id="rss_name" value="" size="30" /></li></ul><button class="button_apply"
type="submit" sid="1"
name="EntrezSystem2.PEntrez.Gene.Gene_SearchBar.CreateRssFeed"
id="rss_createfeed" qk="2" hid="1HeuMR3FLB500P621DCdYH2ctNS-
TACnQ5q8PII8TNAEX5ATQgGyFXfck5Zqggq5-dFtJfe8zGBU">Create
RSS</button></fieldset></div></div><input
name="EntrezSystem2.PEntrez.Gene.Gene_SearchBar.CurrDb" sid="1" type="hidden"
value="gene" /><script type="text/javascript">
147         var d = document.getElementById('search_term');
148         if (d) {d.focus();}
149     </script></div>
150 </div>
151     <input
name="EntrezSystem2.PEntrez.Gene.Entrez_PageController.PreviousPageName" sid="1"
type="hidden" value="results" />
152     <div class="2col">
153     <div class="container">
154         <div id="maincontent" class="content">
155         <div class="results_settings one_setting"><h4 class="left
display_settings content_header jig-ncbipopper" id="display_set"
config="targetPosition : 'bottom center',sourcePosition : 'top

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center',sourceSelector : '#display_settings_menu', hasArrow :
false,openMethod : 'click',closeMethod : 'click',isSourceElementCloseClick:
false,addCloseButton : true, multipleHandlesSelector:'#display_set ~
ul.display_settings a', groupName: 'entrez_pg'"><a href="#"
class="dd_dark_closed">Display Settings:</a></h4><ul class="inline_list left
display_settings"><li><a
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.Display"
sid="2" href="#" sourceContent="display_settings_menu"
id="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.Display">Full
Report</a></li></ul><div id="display_settings_menu" class="disp_settings
tabPopper"><fieldset class="format"><legend>Format</legend><ul
class="column_list"><li><input type="radio"
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.sPresentation"
sid="1" value="full_report" format="" id="full_report" checked="true" /><label
for="full_report">Full Report</label></li><li><input type="radio"
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.sPresentation"
sid="2" value="full_report" format="text" id="full_reporttext" /><label
for="full_reporttext">Full Report (text)</label></li><li><input type="radio"
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.sPresentation"
sid="3" value="gene_table" format="" id="gene_table" /><label
for="gene_table">Gene Table</label></li><li><input type="radio"
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.sPresentation"
sid="4" value="GeneRif" format="" id="GeneRif" /><label
for="GeneRif">GeneRIF</label></li><li><input type="radio"
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.sPresentation"
sid="5" value="DocSum" format="" id="DocSum" /><label
for="DocSum">Summary</label></li><li><input type="radio"
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.sPresentation"
sid="6" value="DocSum" format="text" id="DocSumtext" /><label
for="DocSumtext">Summary (text)</label></li><li><input type="radio"
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.sPresentation"
sid="7" value="Brief" format="" id="Brief" /><label
for="Brief">Brief</label></li><li><input type="radio"
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.sPresentation"
sid="8" value="Brief" format="text" id="Brieftext" /><label for="Brieftext">Brief
(text)</label></li><li><input type="radio"
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.sPresentation"
sid="9" value="ASN1" format="text" id="ASN1text" /><label
for="ASN1text">ASN.1</label></li><li><input type="radio"
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.sPresentation"
sid="10" value="XML" format="text" id="XMLtext" /><label
for="XMLtext">XML</label></li><li><input type="radio"
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.sPresentation"
sid="11" value="uilst" format="text" id="uilsttext" /><label
for="uilsttext">UI List</label></li></ul></fieldset><button
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.SetDisplay"
sid="1" class="button_apply ncbipopper-close-button">Apply</button></div><h4
class="content_header send_to align_right jig-ncbipopper" id="sendto"
config="targetPosition:'bottom center', sourcePosition : 'top
center',sourceSelector : '#send_to_menu', hasArrow : false,
openMethod : 'click',closeMethod : 'click', isSourceElementCloseClick: false,
addCloseButton:true, groupName: 'entrez_pg'"><a href="#"
sourceContent="send_to_menu" class="dd_dark_closed">Send to:</a><script
type="text/javascript">

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156         jQuery(document).ready( function () {
157             jQuery("#send_to_menu input[type='radio']").click(
function () {

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158         var selectedValue =
jQuery(this).val().toLowerCase();
159         var selectedDiv = jQuery("#send_to_menu div." +
selectedValue);
160
161         if(selectedDiv.is(":hidden")){
162             jQuery("#send_to_menu
div.submenu:visible").slideUp();
163             selectedDiv.slideDown();
164         }
165     });
166
167     });
168
169     jQuery("#sendto").bind("ncbipopperclos", function(){
170         jQuery("#send_to_menu
div.submenu:visible").css("display","none");
171         jQuery("#send_to_menu
input[type='radio']:checked").attr("checked",false);
172     });
173
174     </script></h4><div id="send_to_menu" class="tabPopper
send_to"><fieldset><legend>Choose Destination</legend><ul
class="column_list"><li><input type="radio"
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.SendTo"
sid="1" value="File" id="dest_File" /><label
for="dest_File">File</label></li><li><input type="radio"
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.SendTo"
sid="2" value="AddToClipboard" id="dest_AddToClipboard" /><label
for="dest_AddToClipboard">Clipboard</label></li><li><input type="radio"
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.SendTo"
sid="3" value="AddToCollections" id="dest_AddToCollections" /><label
for="dest_AddToCollections">Collections</label></li></ul></fieldset><div
class="submenu file" id="submenu_File" style="display: none;"><p
id="submenu_File_hint" class="hidden"></p><ul><li><label
for="file_format">Format</label><select id="file_format"
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.FFormat"
sid="1"><option value="full_report" format="text" selected="selected">Full Report
(text)</option><option value="DocSum" format="text">Summary
(text)</option><option value="Brief" format="text">Brief (text)</option><option
value="ASN1" format="text">ASN.1</option><option value="XML"
format="text">XML</option><option value="uilst" format="text">UI
List</option></select></li></ul><button
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.SendToSubmit"
sid="1" class="button_apply file ncbipopper-close-button" type="submit"
cmd="File">Create File</button></div><div class="submenu addtoclipboard"
id="submenu_AddToClipboard" style="display: none;"><p
id="submenu_AddToClipboard_hint" class="hidden"></p><button
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.SendToSubmit"
sid="2" class="button_apply clipboard ncbipopper-close-button" type="submit"
cmd="AddToClipboard">Add to Clipboard</button></div><div class="submenu
addtocollections" id="submenu_AddToCollections" style="display: none;"><p
id="submenu_AddToCollections_hint" class="hidden"></p><button
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.SendToSubmit"
sid="3" class="button_apply collections ncbipopper-close-button" type="submit"
cmd="AddToCollections">Add to Collections</button></div></div><div><input
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.FileFormat"

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sid="1" type="hidden" value="full_report" /><input
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.LastPresentati
on" sid="1" type="hidden" value="full_report" /><input
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.Presentation"
sid="1" type="hidden" value="full_report" /><input
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.PageSize"
sid="1" type="hidden" value="20" /><input
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.LastPageSize"
sid="1" type="hidden" value="20" /><input
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.Sort" sid="1"
type="hidden" value="" /><input
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.LastSort"
sid="1" type="hidden" value="" /><input
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.FileSort"
sid="1" type="hidden" value="" /><input
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.Format"
sid="1" type="hidden" value="" /><input
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_DisplayBar.LastFormat"
sid="1" type="hidden" value="" /></div></div>
175         <div id="messagearea" class="empty">
176             <ul id="msgportlet" class="messages"></ul>
177
178         <div></div>
179     </div>
180     <div class="">
181
182         <div><h2 class="result_count"></h2><span id="result_sel"
class="nowrap"></span><input
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Entrez_ResultsController.Result
Count" sid="1" type="hidden" value="1" /><input
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Entrez_ResultsController.RunLa
stQuery" sid="1" type="hidden" /></div>
183     </div>
184     <div class="rpert full-rpert">
185         <a id="pageTop"></a><div class="rpert-header">
186             <h1 class="title"><span class="gn">Aqp2</span> aquaporin 2 (collecting duct) [
<em class="tax">Rattus norvegicus</em> ]
187                 </h1>
188             <span class="geneid">Gene ID: 25386</span>
189             <span>,
190                 updated on 31-Aug-2010</span>
191         </div>
192
193         <div class="rpert-body">
194             <div class="rpert-section gene-Summary">
195                 <a id="geneSummary"></a>
196                 <div class="tophelp">
197                     <a href="/bookshelf/br.fcgi?
book=helpgene&part=EntrezGene#EntrezGene.Summary_2" title="Help"
class="genefullhelp">
198                         <span>Help</span>
199                     </a>
200                     <a href="#pageTop" title="Go to the top of the page" class="genefulltop">
201                         <span>top of page</span>
202                     </a>
203                 </div>
204                 <h2 class="secttitle">

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205     <a class="jig-ncbitoggler-open">
206         <span class="ui-ncbitoggler-master-text">Summary</span>
207     </a>
208 </h2>
209 <div class="rpert-section-body">
210     <div id="summaryDiv" class="section">
211         <dl id="summaryDl">
212             <dt class="noline"> Official
213                 Symbol</dt>
214             <dd class="noline">Aqp2<span class="prov">provided by <a
href="http://rgd.mcw.edu/nomen/nomen.shtml" target="_blank" title="Rat Genome
Database">RGD</a></span></dd>
215             <dt> Official
216                 Full Name</dt>
217             <dd>aquaporin 2 (collecting duct)<span class="prov">provided by <a
href="http://rgd.mcw.edu/nomen/nomen.shtml" target="_blank" title="Rat Genome
Database">RGD</a></span></dd>
218             <dt>Primary source</dt>
219             <dd>
220                 <a href="http://rgd.mcw.edu/generalSearch/RgdSearch.jsp?
quickSearch=1&searchKeyword=2142">RGD:2142</a>
221             </dd>
222             <dt>See related</dt>
223             <dd>
224                 <a href="http://www.ensembl.org/Rattus_norvegicus/geneview?
gene=ENSRNOG00000000297">Ensembl:ENSRNOG00000000297;</a>
225                 <a href="http://ratmap.gen.gu.se/ShowSingleLocus.htm?
accno=41271">RATMAP:41271</a>
226             </dd>
227             <dt>Gene type</dt>
228             <dd>protein coding</dd>
229             <dt>RefSeq status</dt>
230             <dd>PROVISIONAL</dd>
231             <dt>Organism</dt>
232             <dd class="tax">
233                 <a href="http://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?
id=10116">Rattus norvegicus</a>
234             </dd>
235             <dt>Lineage</dt>
236             <dd class="tax">Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia;
Sciurognathi; Muroidea; Muridae; Murinae; Rattus</dd>
237             <dt>Also known as</dt>
238             <dd>AQP-2; MGC156502; aquaporin-2; Aqp2</dd>
239             <dt>Summary</dt>
240             <dd>water channel protein involved in water reabsorption and vasopressin
regulation in kidney collecting duct cells; mutation is linked to nephrogenic
diabetes insipidous (NDI) [RGD]</dd>
241         </dl>
242     </div>
243 </div>
244 </div>
245
246     <div class="rpert-section gene-GenomicProduct">
247     <a id="geneGenomic regions, transcripts, and products"></a>
248     <div class="tophelp">
249         <a href="/bookshelf/br.fcgi?

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book=helpgene&part=EntrezGene#EntrezGene.Genomic_Regions_Transcripts_a"
title="Help" class="genefullhelp">
250     <span>Help</span>
251     </a>
252     <a href="#pageTop" title="Go to the top of the page" class="genefulltop">
253         <span>top of page</span>
254     </a>
255 </div>
256 <h2 class="secttitle">
257     <a class="jig-ncbitoggler-open">
258         <span class="ui-ncbitoggler-master-text">Genomic regions, transcripts, and
products</span>
259     </a>
260 </h2>
261 <div class="rpert-section-body">
262     <div>
263         <p class="note">(plus) Go to <a href="#geneReference sequences">reference
sequence details</a></p>
264         <p class="note-link">
265             <a href="/nuccore/NC_005106.2?
from=138325604&to=138331142&report=graph&content=5">Go to nucleotide
graphics</a>
266         </p>
267     </div>
268     <div id="seq-viewer">
269         <iframe src="/projects/sviewer/embedded iframe.html?
embedded=minimal&noslider=1&id=NC_005106.2&from=138325604&to=1383
31142" frameBorder="0">
270         <p>
271             <a href="/nuccore/NC_005106.2?
from=138325604&to=138331142&report=graph&content=5">Try our new
Sequence Viewer</a>
272         </p>
273     </iframe>
274 </div>
275 </div>
276 </div>
277
278     <div class="rpert-section gene-GenomicContext">
279     <a id="geneGenomic context"></a>
280     <div class="tophelp">
281         <a href="/bookshelf/br.fcgi?
book=helpgene&part=EntrezGene#EntrezGene.Genomic_Context" title="Help"
class="genefullhelp">
282         <span>Help</span>
283     </a>
284     <a href="#pageTop" title="Go to the top of the page" class="genefulltop">
285         <span>top of page</span>
286     </a>
287 </div>
288 <h2 class="secttitle">
289     <a class="jig-ncbitoggler-open">
290         <span class="ui-ncbitoggler-master-text">Genomic context</span>
291     </a>
292 </h2>
293 <div class="rpert-section-body">
294     <div>

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295     <p class="note"><strong>chromosome:</strong> 7; <strong>Location:
</strong>7q36</p>
296     <p class="note-link">
297         <a href="/mapview/map_search.cgi?
direct=on&idtype=gene&id=25386">See Aqp2 in MapViewer</a>
298     </p>
299 </div>
300 <p class="withnote"><map name="nbrMap25386_62750807" id="nbrMap25386_62750807">
301 <area shape="rect" onMouseOver="showtip(this,event,'BCDIN3 domain containing') "
onMouseOut="hidetip()" coords="27,23,77,31" alt="Neighboring gene BCDIN3 domain
containing" href="/gene/363001" />
302 <area shape="rect" onMouseOver="showtip(this,event,'Fas apoptotic inhibitory
molecule 2') " onMouseOut="hidetip()" coords="113,23,210,31" alt="Neighboring gene
Fas apoptotic inhibitory molecule 2" href="/gene/246274" />
303 <area shape="rect" onMouseOver="showtip(this,event,'aquaporin 5') "
onMouseOut="hidetip()" coords="367,35,399,43" alt="Neighboring gene aquaporin 5"
href="/gene/25241" />
304 <area shape="rect" onMouseOver="showtip(this,event,'aquaporin 6, kidney
specific') " onMouseOut="hidetip()" coords="393,23,423,31" alt="Neighboring gene
aquaporin 6, kidney specific" href="/gene/29170" />
305 </map>
306 </p>
307 </div>
308 </div>
309
310         <div class="rpert-section gene-bibliography">
311         <a id="geneBibliography"></a><div class="tophelp"><a
href="/bookshelf/br.fcgi?
book=helpgene&part=EntrezGene#EntrezGene.Bibliography" title="Help"
class="genefullhelp"><span>Help</span></a><a href="#pageTop" title="Go to the top
of the page" class="genefulltop"><span>top of page</span></a></div><h2
class="secttitle"><a class="jig-ncbitoggler-open"><span class="ui-ncbitoggler-
master-text">Bibliography</span></a></h2>
312
313         <div class="rpert-section-body">
314
315         <div class="generif-pubmed"><h3>Related articles in
PubMed</h3><div class="generefbl-link"><ol class="generef-link"><li><a
href="/pubmed/20432437/">Adaptation to alkalosis induces cell cycle delay and
apoptosis in cortical collecting duct cells: role of Aquaporin-2.</a> Rivarola V,
<em>et al</em>. J Cell Physiol, 2010 Aug. PMID 20432437.</li><li><a
href="/pubmed/20130117/">Dehydration-induced increase in aquaporin-2 protein
abundance is blocked by nonsteroidal anti-inflammatory drugs.</a> Baggailey E,
<em>et al</em>. Am J Physiol Renal Physiol, 2010 Apr. PMID 20130117.</li><li><a
href="/pubmed/20107111/">Cyclooxygenase 2 inhibition exacerbates AQP2 and pAQP2
downregulation independently of V2 receptor abundance in the postobstructed
kidney.</a> Jensen AM, <em>et al</em>. Am J Physiol Renal Physiol, 2010 Apr. PMID
20107111.</li><li><a href="/pubmed/20089674/">Quantitative analysis of aquaporin-
2 phosphorylation.</a> Xie L, <em>et al</em>. Am J Physiol Renal Physiol, 2010
Apr. PMID 20089674.</li><li><a href="/pubmed/19794145/">FAPP2 is required for
aquaporin-2 apical sorting at trans-Golgi network in polarized MDCK cells.</a>
Yui N, <em>et al</em>. Am J Physiol Cell Physiol, 2009 Dec. PMID
19794145.</li></ol><p class="see-all-pm"><a href="/gene?
Db=pubmed&DbFrom=gene&Cmd=Link&LinkName=gene_pubmed&LinkReadableN

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ame=PubMed&IdsFromResult=25386" title="See all 93 citations in Pubmed">See
all (93) citations in PubMed</a></p></div></div>

316
317         <div class="generif-pubmed generif">
318         <h3>GeneRIFs: Gene References Into Functions <a
href="/projects/GeneRIF/GeneRIFhelp.html" class="whatisthis">What's a
GeneRIF?</a></h3>
319         <ol class="generef-link">
320         <li>
321             <a href="/pubmed/20432437" target="_blank" class="jig-ncbipopper"
config="closeAnimation: 'none', openAnimation : 'none', openMethod : 'mouseover',
targetPosition : 'top right', sourcePosition : 'top left', sourceSelector :
'#gene-popper1', hasArrow : true">AQP2 expression facilitates cell swelling or
shrinkage leading to the activation of channels necessary to the control of cell
proliferatio and apoptosis.</a>
322             <div id="gene-popper1" class="gene-rif-popper">Title: Adaptation to
alkalosis induces cell cycle delay and apoptosis in cortical collecting duct
cells: role of Aquaporin-2.</div>
323             </li>
324             <li>
325                 <a href="/pubmed/19040709" target="_blank" class="jig-ncbipopper"
config="closeAnimation: 'none', openAnimation : 'none', openMethod : 'mouseover',
targetPosition : 'top right', sourcePosition : 'top left', sourceSelector :
'#gene-popper2', hasArrow : true">Upregulation of AQP2 expression is maintained
dependent upon non-suppressible release of arginine vasopressin in rats with
glucocorticoid deficiency. AQP2 plays a crucial role in impairment of water
excretion in aged rats with glucocorticoid deficiency.</a>
326                 <div id="gene-popper2" class="gene-rif-popper">Title: Vasopressin-dependent
upregulation of aquaporin-2 gene expression in aged rats with glucocorticoid
deficiency.</div>
327                 </li>
328                 <li>
329                     <a href="/pubmed/20130117" target="_blank" class="jig-ncbipopper"
config="closeAnimation: 'none', openAnimation : 'none', openMethod : 'mouseover',
targetPosition : 'top right', sourcePosition : 'top left', sourceSelector :
'#gene-popper3', hasArrow : true">These results demonstrate that NSAIDs decrease
AQP2 protein abundance, particularly during adaptation during dehydration.</a>
330                     <div id="gene-popper3" class="gene-rif-popper">Title: Dehydration-induced
increase in aquaporin-2 protein abundance is blocked by nonsteroidal anti-
inflammatory drugs.</div>
331                     </li>
332                     <li>
333                         <a href="/pubmed/20107111" target="_blank" class="jig-ncbipopper"
config="closeAnimation: 'none', openAnimation : 'none', openMethod : 'mouseover',
targetPosition : 'top right', sourcePosition : 'top left', sourceSelector :
'#gene-popper4', hasArrow : true">The results indicate that COX-2 inhibition does
not mimic ANG II receptor (AT1R) blockade-mediated effects and that AT1R-mediated
AQP2 regulation in the postobstructed kidney collecting duct is independent of
COX-2 induction.</a>
334                         <div id="gene-popper4" class="gene-rif-popper">Title: Cyclooxygenase 2
inhibition exacerbates AQP2 and pAQP2 downregulation independently of V2 receptor
abundance in the postobstructed kidney.</div>
335                         </li>
336                         <li>
337                             <a href="/pubmed/20089674" target="_blank" class="jig-ncbipopper"
config="closeAnimation: 'none', openAnimation : 'none', openMethod : 'mouseover',
targetPosition : 'top right', sourcePosition : 'top left', sourceSelector :
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'#gene-popper5', hasArrow : true">These studies suggest that Ser269
phosphorylation may be a more consistent indicator of vasopressin action and AQP2
membrane abundance than is Ser256 phosphorylation.</a>
338     <div id="gene-popper5" class="gene-rif-popper">Title: Quantitative analysis
of aquaporin-2 phosphorylation.</div>
339     </li>
340     <li>
341         <a href="/pubmed/18419953" target="_blank" class="jig-ncbipopper"
config="closeAnimation: 'none', openAnimation : 'none', openMethod : 'mouseover',
targetPosition : 'top right', sourcePosition : 'top left', sourceSelector :
'#gene-popper6', hasArrow : true">
Circulatory arrest led to down regulation of
renal AQP2 expression.</a>
342         <div id="gene-popper6" class="gene-rif-popper">Title: [Expression of renal
aquaporin 2 after circulatory arrest]</div>
343         </li>
344         <li>
345             <a href="/pubmed/19794145" target="_blank" class="jig-ncbipopper"
config="closeAnimation: 'none', openAnimation : 'none', openMethod : 'mouseover',
targetPosition : 'top right', sourcePosition : 'top left', sourceSelector :
'#gene-popper7', hasArrow : true">
FAPP2 is necessary to generate AQP2-bearing
vesicles at trans-Golgi that will undergo phosphorylation by protein kinase A in
subapical regions.</a>
346             <div id="gene-popper7" class="gene-rif-popper">Title: FAPP2 is required for
aquaporin-2 apical sorting at trans-Golgi network in polarized MDCK cells.</div>
347             </li>
348             <li>
349                 <a href="/pubmed/19776175" target="_blank" class="jig-ncbipopper"
config="closeAnimation: 'none', openAnimation : 'none', openMethod : 'mouseover',
targetPosition : 'top right', sourcePosition : 'top left', sourceSelector :
'#gene-popper8', hasArrow : true">
Increased abundance of inner medulla aquaporin-
2 (AQP2) and AQP2 phosphorylated at Ser(256) (p-AQP2) in heart failure.</a>
350                 <div id="gene-popper8" class="gene-rif-popper">Title: Changes of renal
AQP2, ENaC, and NHE3 in experimentally induced heart failure: response to
angiotensin II AT1 receptor blockade.</div>
351                 </li>
352                 <li>
353                     <a href="/pubmed/19300448" target="_blank" class="jig-ncbipopper"
config="closeAnimation: 'none', openAnimation : 'none', openMethod : 'mouseover',
targetPosition : 'top right', sourcePosition : 'top left', sourceSelector :
'#gene-popper9', hasArrow : true">
AQP2 translocation is largely decreased by
metabolic acidosis even with increased expression in the collecting ducts.</a>
354                     <div id="gene-popper9" class="gene-rif-popper">Title: Acute and chronic
metabolic acidosis interferes with aquaporin-2 translocation in the rat kidney
collecting ducts.</div>
355                     </li>
356                     <li>
357                         <a href="/pubmed/19656910" target="_blank" class="jig-ncbipopper"
config="closeAnimation: 'none', openAnimation : 'none', openMethod : 'mouseover',
targetPosition : 'top right', sourcePosition : 'top left', sourceSelector :
'#gene-popper10', hasArrow : true">
In sirolimus-treated animals, AQP2 expression
was reduced and expression of TRPM6 was increased.</a>
358                         <div id="gene-popper10" class="gene-rif-popper">Title: Rosiglitazone
prevents sirolimus-induced hypomagnesemia, hypokalemia, and downregulation of
NKCC2 protein expression.</div>
359                         </li>
360                     </ol>
361                     <div class="submit-genrif">

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362     <span>Submit:</span>
363     <a href="/projects/GeneRIF/GeneRIF.cgi?
lid=25386&sym=Aqp2&name=aquaporin 2 (collecting duct)&org=Rattus
norvegicus&url=/gene/25386">New GeneRIF</a>
364     <a href="/RefSeq/update.cgi?
geneid=25386&symbol=Aqp2;task=fixpub">Correction</a>
365     <a href="?db=gene&report=GeneRif&term=25386" class="seeall-
generif">See all (63)</a>
366 </div>
367 </div>
368
369     </div>
370 </div>
371
372
373
374         <div class="rpert-section gene-interactions">
375         <a id="geneInteractions"></a>
376         <div class="tophelp">
377             <a href="/bookshelf/br.fcgi?
book=helpgene&part=EntrezGene#EntrezGene.Interactions" title="Help"
class="genefullhelp">
378                 <span>Help</span>
379             </a>
380             <a href="#pageTop" title="Go to the top of the page" class="genefulltop">
381                 <span>top of page</span>
382             </a>
383         </div>
384         <h2 class="secttitle">
385             <a class="jig-ncbitoggler-open">
386                 <span class="ui-ncbitoggler-master-text">Interactions</span>
387             </a>
388         </h2>
389         <div class="rpert-section-body">
390             <div>
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393                         <tr>
394                             <th id="inter-prod">Product</th>
395                             <th id="inter-interactant">Interactant</th>
396                             <th id="inter-otherGene">Other Gene</th>
397                             <th id="inter-compl">Complex</th>
398                             <th id="inter-source">Source</th>
399                             <th id="inter-pubs">Pubs</th>
400                             <th id="inter-desc">Description</th>
401                         </tr>
402                     </thead>
403                     <tbody>
404                         <tr>
405                             <td headers="inter-prod">NP_037041.1</td>
406                             <td headers="inter-interactant">
407                                 <a href="/protein/13592133">NP_112406.1</a>
408                             </td>
409                             <td headers="inter-otherGene"><a href="/gene/81822">Actb</a> </td>
410                             <td headers="inter-compl"><a href=""></a> </td>
411                             <td headers="inter-source"><a href="http://bind.ca/Action?

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idsearch=183539">BIND</a> </td>
412         <td headers="inter-pubs">
413             <a title="PubMed ID 15336526" href="/pubmed/15336526">PubMed</a>
414         </td>
415         <td headers="inter-desc">AQP2 interacts with beta-actin. </td>
416     </tr>
417 </tbody>
418 </table>
419 </div>
420 </div>
421 </div>
422
423         <div class="rpert-section gene-homologyinfo">
424             <a id="geneGeneral gene info"></a><div class="tophelp">
425                 <a href="/bookshelf/br.fcgi?
book=helpgene&part=EntrezGene#EntrezGene.General_Gene_Information"
title="Help" class="genefullhelp">
426                     <span>Help</span>
427                 </a>
428                 <a href="#pageTop" title="Go to the top of the page" class="genefulltop">
429                     <span>top of page</span>
430                 </a>
431 </div><h2 class="secttitle">
432     <a class="jig-ncbitoggler-open">
433         <span class="ui-ncbitoggler-master-text">General gene information</span>
434     </a>
435 </h2>
436
437         <div class="rpert-section-body">
438             <div class="gene-markers infosec">
439                 <a id="geneMarkers"></a>
440                 <h3>Markers</h3>
441                 <dl>
442                     <dt><strong>RH94449</strong> (e-PCR)</dt>
443                     <dd> Links:
444                         <a href="http://www.ncbi.nlm.nih.gov/genome/sts/sts.cgi?
uid=119697">UniSTS:119697</a></dd>
445                     <dt><strong>Aqp2</strong> (e-PCR), detects polymorphism</dt>
446                     <dd> Links:
447                         <a href="http://www.ncbi.nlm.nih.gov/genome/sts/sts.cgi?
uid=209563">UniSTS:209563</a></dd>
448                     <dt><strong>RH134997</strong> (e-PCR)</dt>
449                     <dd> Links:
450                         <a href="http://www.ncbi.nlm.nih.gov/genome/sts/sts.cgi?
uid=218274">UniSTS:218274</a></dd>
451                 </dl>
452             </div>
453
454             <div class="infosec">
455                 <a id="genotypes"></a>
456                 <h3>Genotypes</h3>
457                 <ul class="geneinfo-subsec">
458                     <li>
459                         <a href="http://www.ncbi.nlm.nih.gov/SNP/snp_ref.cgi?locusId=25386">See
Aqp2 SNP
460
461                                     Geneview
Report </a>

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461     </li>
462     <li>
463         <a href="http://www.ncbi.nlm.nih.gov/SNP/CGI/genesnpview.cgi?
report=genotype&fromdb=gene&id=25386"> See Aqp2 SNP
464
465         Report </a>
466     </li>
467 </ul>
468 </div>
469
470         <div id="gengeneInfoPcontainer" class="geneportletcontainer">
471     <div id="gengeneCommentDiv" class="section"></div>
472 </div>
473
474         <div class="infosec">
475     <a id="homologys"></a>
476     <h3>Homology</h3>
477     <ul class="geneinfo-subsec">
478         <li><a href="/sites/homologene/20137">Homologs of the Aqp2 gene</a>: The Aqp2
gene is conserved in human, chimpanzee, dog, cow, mouse, A.thaliana, and
rice.</li>
479         <li><a href="http://www.ncbi.nlm.nih.gov/mapview/maps.cgi?
taxid=10116&chr=7&MAPS=genes-r-org/human-chr/rat%3A7,genes-r-org/mouse-
chr/rat%3A7,genes-r-org/rat-
chr7&query=e%3A25386[egene_id]+AND+gene[obj_type]&QSTR=aqp2&cmd=focus
&fill=10">Map Viewer</a> (Human, Mouse)</li>
480     </ul>
481 </div>
482
483         <div class="infosec">
484     <a id="geneinfo-pathways"></a>
485     <h3>Pathways</h3>
486     <dl class="pathway">
487         <dt>KEGG pathway: Vasopressin-regulated water reabsorption</dt>
488         <dd>
489             <a href="http://www.genome.jp/dbget-bin/show_pathway?
rno04962+25386">04962</a>
490         </dd>
491     </dl>
492 </div>
493
494
495         <div class="infosec">
496     <a id="geneGene Ontology"></a>
497     <h3 class="withnote">Gene Ontology <span class="note"> provided by <a
target="_blank" href="http://www.ebi.ac.uk/GOA/">GOA</a></span></h3>
498     <div class="geneinfo-subsec fgrid">
499         <table class="jig-ncbigrid" config="isPagable:true, pageSize:25,
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501                 <tr>
502                     <th class="col1" rowspan="2" id="ont-func">Function</th>
503                     <th colspan="2" id="ont-evi-1">Evidence</th>
504                 </tr>
505                 <tr>
506                     <th id="ont-evi-code-1">Evidence Code</th>

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Genotype

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507         <th id="ont-pub-1">Pubs</th>
508     </tr>
509 </thead>
510 <tbody>
511     <tr>
512         <td headers="ont-func">
513             <a href="http://amigo.geneontology.org/cgi-bin/amigo/go.cgi?
view=details&depth=1&query=30165">PDZ domain binding</a>
514         </td>
515         <td class="col23" headers="ont-evi- ont-evi-code-"> IPI</td>
516         <td class="col23" headers="ont-evi- ont-pub-"><a
href="/pubmed/15196935" target="_blank" title="PubMed ID 15196935">PubMed</a>
517         </td>
518     </tr>
519     <tr>
520         <td headers="ont-func">
521             <a href="http://amigo.geneontology.org/cgi-bin/amigo/go.cgi?
view=details&depth=1&query=3779">actin binding</a>
522         </td>
523         <td class="col23" headers="ont-evi- ont-evi-code-"> IDA</td>
524         <td class="col23" headers="ont-evi- ont-pub-"><a
href="/pubmed/15336526" target="_blank" title="PubMed ID 15336526">PubMed</a>
525         </td>
526     </tr>
527     <tr>
528         <td headers="ont-func">
529             <a href="http://amigo.geneontology.org/cgi-bin/amigo/go.cgi?
view=details&depth=1&query=15168">glycerol transmembrane transporter
activity</a>
530         </td>
531         <td class="col23" headers="ont-evi- ont-evi-code-"> IEA</td>
532         <td class="col23" headers="ont-evi- ont-pub-">
533         </td>
534     </tr>
535     <tr>
536         <td headers="ont-func">
537             <a href="http://amigo.geneontology.org/cgi-bin/amigo/go.cgi?
view=details&depth=1&query=15168">glycerol transmembrane transporter
activity</a>
538         </td>
539         <td class="col23" headers="ont-evi- ont-evi-code-"> ISO</td>
540         <td class="col23" headers="ont-evi- ont-pub-">
541         </td>
542     </tr>
543     <tr>
544         <td headers="ont-func">
545             <a href="http://amigo.geneontology.org/cgi-bin/amigo/go.cgi?
view=details&depth=1&query=5515">protein binding</a>
546         </td>
547         <td class="col23" headers="ont-evi- ont-evi-code-"> IPI</td>
548         <td class="col23" headers="ont-evi- ont-pub-"><a
href="/pubmed/19209902" target="_blank" title="PubMed ID 19209902">PubMed</a>
549         </td>
550     </tr>
551     <tr>
552         <td headers="ont-func">
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view=details&depth=1&query=5215">transporter activity</a>
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view=details&depth=1&query=70382">exocytic vesicle</a>
952         </td>
953         <td class="col23" headers="ont-evi-3 ont-evi-code-3"> IDA</td>
954         <td class="col23" headers="ont-evi-3 ont-pub-3"><a
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955             </td>
956     </tr>
957     <tr>
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959             <a href="http://amigo.geneontology.org/cgi-bin/amigo/go.cgi?
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960         </td>
961         <td class="col23" headers="ont-evi-3 ont-evi-code-3"> IEA</td>
962         <td class="col23" headers="ont-evi-3 ont-pub-3">
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968         </td>
969         <td class="col23" headers="ont-evi-3 ont-evi-code-3"> IDA</td>
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976         </td>
977         <td class="col23" headers="ont-evi-3 ont-evi-code-3"> IEA</td>
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979             </td>
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992         </td>
993         <td class="col23" headers="ont-evi-3 ont-evi-code-3"> IMP</td>
994         <td class="col23" headers="ont-evi-3 ont-pub-3"><a
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view=details&depth=1&query=5886">plasma membrane</a>
1000         </td>
1001         <td class="col23" headers="ont-evi-3 ont-evi-code-3"> ISO</td>
1002         <td class="col23" headers="ont-evi-3 ont-pub-3">
1003             </td>
1004     </tr>
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1007             <a href="http://amigo.geneontology.org/cgi-bin/amigo/go.cgi?
view=details&depth=1&query=43234">protein complex</a>
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1009         <td class="col23" headers="ont-evi-3 ont-evi-code-3"> IDA</td>
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1015             <a href="http://amigo.geneontology.org/cgi-bin/amigo/go.cgi?
view=details&depth=1&query=55037">recycling endosome</a>
1016         </td>
1017         <td class="col23" headers="ont-evi-3 ont-evi-code-3"> IEA</td>
1018         <td class="col23" headers="ont-evi-3 ont-pub-3">
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view=details&depth=1&query=55037">recycling endosome</a>
1024         </td>
1025         <td class="col23" headers="ont-evi-3 ont-evi-code-3"> ISO</td>
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1035             </td>
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1039                 <a href="http://amigo.geneontology.org/cgi-bin/amigo/go.cgi?
view=details&depth=1&query=5802">trans-Golgi network</a>
1040             </td>
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1042             <td class="col23" headers="ont-evi-3 ont-pub-3"><a
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view=details&depth=1&query=30133">transport vesicle</a>
1048             </td>
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1051             </td>
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1059 </div>
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1061
1062         <div class="rprt-section gene-proteinInfo">
1063             <a id="geneGeneral protein info"></a>
1064             <div class="tophelp">
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book=helpgene&part=EntrezGene#EntrezGene.General_Protein_Information"
title="Help" class="genefullhelp">
1066                     <span>Help</span>
1067                 </a>
1068                 <a href="#pageTop" title="Go to the top of the page" class="genefulltop">
1069                     <span>top of page</span>
1070                 </a>
1071             </div>
1072             <h2 class="secttitle">
1073                 <a class="jig-ncbitoggler-open">
1074                     <span class="ui-ncbitoggler-master-text">General protein information</span>
1075                 </a>
1076             </h2>
1077             <div class="rprt-section-body">

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1078     <dl>
1079         <dt>Preferred Names</dt>
1080         <dd>aquaporin-2</dd>
1081     </dl>
1082     <dl>
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1085         <dd>AQP-CD</dd>
1086         <dd>WCH-CD</dd>
1087         <dd>aquaporin-CD</dd>
1088         <dd>ADH water channel</dd>
1089         <dd>collecting duct water channel protein</dd>
1090         <dd>water channel protein for renal collecting duct</dd>
1091     </dl>
1092 </div>
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1094
1095         <div class="rpert-section gene-refseq">
1096     <a id="geneReference sequences"></a>
1097     <div class="tophelp">
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book=helpgene&part=EntrezGene#EntrezGene.NCBI_Reference_Sequences_RefS"
title="Help" class="genefullhelp">
1099         <span>Help</span>
1100     </a>
1101     <a href="#pageTop" title="Go to the top of the page" class="genefulltop">
1102         <span>top of page</span>
1103     </a>
1104 </div>
1105 <h2 class="secttitle">
1106     <a class="jig-ncbitoggler-open">
1107         <span class="ui-ncbitoggler-master-text">NCBI Reference Sequences
(RefSeq)</span>
1108     </a>
1109 </h2>
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1111     <h3 class="genomerefseqs">RefSeqs maintained independently of Annotated
Genomes</h3>
1112     <p class="desc"> These reference sequences exist independently of genome
builds.
1113
1114         <a href="#refseq-expl" id="expl-
refseq">Explain</a></p>
1115     <p id="refseq-expl"> These reference sequences are curated
independently of the genome annotation cycle, so their
versions may not match the RefSeq
versions in the current genome build. Identify version
mismatches by comparing the
version of the RefSeq in this section to the one reported in
1118         <a href="#geneGenomic regions, transcripts, and
products">Genomic regions, transcripts, and products</a>
1119         above. </p>
1120     <h4>mRNA and Protein(s)</h4>
1121     <ol>
1122         <li>
1123             <p><a href="/nuccore/NM_012909.2">NM_012909.2</a> → <a
href="/protein/NP_037041.2">NP_037041.2</a> aquaporin-2</p>
1124         <dl>

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1125         <dt>Source sequence(s)</dt>
1126         <dd>
1127             <a href="/sviewer/viewer.fcgi?
val=D13906&report=docsum">D13906</a>
1128         </dd>
1129         <dt>UniProtKB/Swiss-Prot</dt>
1130         <dd>
1131             <a href="/entrez/utils/fref.fcgi?
http://www.uniprot.org/entry/P34080">P34080</a>
1132         </dd>
1133         <dt>Related Ensembl</dt>
1134         <dd><a href="http://www.ensembl.org/Rattus_norvegicus/geneview?
gene=ENSRNOP00000000324">ENSRNOP00000000324</a>, <a
href="http://www.ensembl.org/Rattus_norvegicus/geneview?
gene=ENSRNOT00000000324">ENSRNOT00000000324</a></dd>
1135         <dt class="clear"> Conserved Domains (1) <a
href="/Structure/cdd/wrpsb.cgi?seqinput=NP_037041.2">summary</a></dt>
1136         <dd>
1137             <dl class="level2">
1138                 <dt><a href="/Structure/cdd/cddsrv.cgi?uid=29423">cd00333</a><br
/><span class="cddlocation">Location:</span><span class="cddfrom">11</span> -
<span class="cddto">222</span><br /> Blast Score: <span
class="cddscore">472</span></dt>
1139                 <dd class="clearfix"> MIP; Major intrinsic protein (MIP)
superfamily. Members of the MIP superfamily function as membrane channels that
selectively transport water, small neutral molecules, and ions out of and between
cells.</dd>
1140             </dl>
1141         </dd>
1142     </dl>
1143 </li>
1144 </ol>
1145 <h3 class="genomerefseqs">RefSeqs of Annotated Genomes: Build 4.2</h3>
1146 <p class="desc"> The following sections contain reference sequences that
belong to a
1147         specific genome build. <a id="expl-genomes"
href="#">Explain</a></p>
1148 <p id="expl-genomes-desc" style="display:none">This section includes genomic
Reference
1149         Sequences (RefSeqs) from all assemblies on which this gene is
annotated, such as RefSeqs
1150         for chromosomes and scaffolds (contigs) from both reference and
alternate assemblies.
1151         Model RNAs and proteins are also reported here.</p>
1152 <h3>Reference assembly (based on RGSC_v3.4)</h3>
1153 <h4>Genomic </h4>
1154 <ol>
1155     <li>
1156         <p>NC_005106.2</p>
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1159             <dd>138325854..138330890</dd>
1160             <dt>Download</dt>
1161             <dd>
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&from=138325854&to=138330890&report=genbank">GenBank</a>
1163                 <a href="/nuccore/NC_005106.2?
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&amp;from=138325854&amp;to=138330890&amp;report=fasta"> FASTA</a>
1164     <a href="/nuccore/NC_005106.2?
&amp;from=138325854&amp;to=138330890&amp;report=graph"> Sequence Viewer
(Graphics)</a>
1165     </dd>
1166   </dl>
1167 </li>
1168 <li>
1169   <p>NW_047784.1 </p>
1170   <dl>
1171     <dt>Range</dt>
1172     <dd>5053840..5058876</dd>
1173     <dt>Download</dt>
1174     <dd>
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&amp;from=5053840&amp;to=5058876&amp;report=genbank">GenBank</a>
1176       <a href="/nuccore/NW_047784.1?
&amp;from=5053840&amp;to=5058876&amp;report=fasta"> FASTA</a>
1177       <a href="/nuccore/NW_047784.1?
&amp;from=5053840&amp;to=5058876&amp;report=graph"> Sequence Viewer
(Graphics)</a>
1178     </dd>
1179   </dl>
1180 </li>
1181 </ol>
1182 <h3>Alternate assembly (Rn_Celera)</h3>
1183 <h4>Genomic </h4>
1184 <ol>
1185   <li>
1186     <p>AC_000075.1</p>
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1189       <dd>127193025..127197995</dd>
1190       <dt>Download</dt>
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&amp;from=127193025&amp;to=127197995&amp;report=genbank">GenBank</a>
1193         <a href="/nuccore/AC_000075.1?
&amp;from=127193025&amp;to=127197995&amp;report=fasta"> FASTA</a>
1194         <a href="/nuccore/AC_000075.1?
&amp;from=127193025&amp;to=127197995&amp;report=graph"> Sequence Viewer
(Graphics)</a>
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1196     </dl>
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1198   <li>
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&amp;from=4221700&amp;to=4226670&amp;report=genbank">GenBank</a>
1206         <a href="/nuccore/NW_001084861.1?
&amp;from=4221700&amp;to=4226670&amp;report=fasta"> FASTA</a>
1207         <a href="/nuccore/NW_001084861.1?

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&from=4221700&to=4226670&report=graph"> Sequence Viewer
(Graphics)</a>
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1215     <div class="rprrt-section gene-relate-seq">
1216   <a id="geneRelated sequences"></a>
1217   <div class="tophelp">
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book=helpgene&part=EntrezGene#EntrezGene.Related_Sequences" title="Help"
class="genefullhelp">
1219       <span>Help</span>
1220     </a>
1221     <a href="#pageTop" title="Go to the top of the page" class="genefulltop">
1222       <span>top of page</span>
1223     </a>
1224   </div>
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1226     <a class="jig-ncbitoggler-open">
1227       <span class="ui-ncbitoggler-master-text">Related Sequences</span>
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1235           <th rowspan="2" id="rs-protein">Protein</th>
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1250             <a href="/protein/149032069">EDL86981.1</a>
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1269       <a href="/nuccore/6561266">AF110021.1</a>
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1314       <th id="rs-genepept">GenePept Link</th>
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1315         <th id="rs-uniprot">UniProtKB Link</th>
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1321         <td headers="rs-link rs-genepept">
1322             <a href="/protein/461529">GenPept</a>
1323         </td>
1324         <td headers="rs-link rs-uniprot">
1325             <a href="http://www.uniprot.org/entry/P34080">UniProtKB/Swiss-
Prot:P34080</a>
1326         </td>
1327     </tr>
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1329         <td headers="rs-prot-acc">Q9QYA1</td>
1330         <td headers="rs-link rs-genepept">
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1332         </td>
1333         <td headers="rs-link rs-uniprot">
1334             <a
href="http://www.uniprot.org/entry/Q9QYA1">UniProtKB/TrEMBL:Q9QYA1</a>
1335         </td>
1336     </tr>
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1339 </div>
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1342     <div class="rpert-section gene-additional-links">
1343         <a id="geneAdditional links"></a><div class="tophelp">
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book=helpgene&part=EntrezGene#EntrezGene.Additional_Links" title="Help"
class="genefullhelp">
1345                 <span>Help</span>
1346             </a>
1347             <a href="#pageTop" title="Go to the top of the page" class="genefulltop">
1348                 <span>top of page</span>
1349             </a>
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1351     <a class="jig-ncbitoggler-open">
1352         <span class="ui-ncbitoggler-master-text">Additional Links</span>
1353     </a>
1354 </h2>
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1356     <div class="rpert-section-body">
1357         <div>
1358             <h3 class="withnote">Additional Links</h3>
1359             <ul class="add-links">
1360                 <li>UCSC <a href="http://genome.ucsc.edu/cgi-bin/hgTracks?
org=rat&position=Nm_012909">UCSC</a></li>
1361                 <li>UniGene <a href="http://www.ncbi.nlm.nih.gov/UniGene/clust.cgi?
ORG=Rn&CID=90076">Rn.90076</a></li>
1362             </ul>
1363         </div>
1364
1365         <h3 class="withnote">Gene LinkOut </h3><p>The following <a
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href="http://www.ncbi.nlm.nih.gov/projects/linkout/index.html">LinkOut</a>
resources are supplied by external providers. These providers are
    responsible for maintaining the links. </p><div>
1366     <div class="linkout">
1367         <a class="jig-ncbitoggler main">
1368             <span>Molecular Biology Databases</span>
1369         </a>
1370         <ul>
1371             <li>
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1373                 <a target="_blank" href="/entrez/utils/fref.fcgi?
1374 itool=Gene_FullReport&PrId=5618&uid=25386&nlmid=&db=gene&url=
http://www.ihop-net.org/UniPub/iHOP/to?focus=IHOP&id=321485">iHOP -
Information Hyperlinked over Proteins</a>
1375             </li>
1376             <li>
1377                 <span class="free-rsc"></span>
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http://www.nextbio.com/b/search/ov/Aqp2?id=606439&type=feature">NextBio</a>
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1383             <a target="_blank" href="/entrez/utils/fref.fcgi?
itool=Gene_FullReport&PrId=4118&uid=25386&nlmid=&db=gene&url=
http://www.pantherdb.org/genes/gene.do?acc=RAT|RGD=2142|UniProtKB=P34080">
1384                 <span>Gene Information</span>
1385             </a>
1386         </li>
1387     </ul>
1388     <li><span class="free-rsc"></span>Kyoto Encyclopedia of Genes and
Genomes</li>
1389     <ul>
1390         <li>
1391             <a target="_blank" href="/entrez/utils/fref.fcgi?
itool=Gene_FullReport&PrId=5174&uid=25386&nlmid=&db=gene&url=
http://www.genome.jp/dbget-bin/show_pathway?rno04962+25386">
1392                 <span>Vasopressin-regulated water reabsorption</span>
1393             </a>
1394         </li>
1395         <li>
1396             <a target="_blank" href="/entrez/utils/fref.fcgi?
itool=Gene_FullReport&PrId=5174&uid=25386&nlmid=&db=gene&url=
http://www.genome.jp/dbget-bin/www_bget?rno:25386">
1397                 <span>rno:25386</span>
1398             </a>
1399         </li>
1400     </ul>
1401     <li>
1402         <a target="_blank" href="/entrez/utils/fref.fcgi?
itool=Gene_FullReport&PrId=7084&uid=25386&nlmid=&db=gene&url=
https://portal.genego.com/cgi/gene.cgi?id=-1233852364">GeneGo</a>
1403     </li>
1404     <li>
1405         <span class="free-rsc"></span>
1406         <a target="_blank" href="/entrez/utils/fref.fcgi?
```



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1407     </li>
1408     <li>
1409         <span class="free-rsc"></span>
1410         <a target="_blank" href="/entrez/utils/fref.fcgi?
1411         itool=Gene_FullReport&PrId=5059&uid=25386&nlmid=&db=gene&url=
1412         http://biogps.gnf.org/genereport/25386/">BioGPS</a>
1413     </li>
1414     <li><span class="free-rsc"></span>GeneNetwork</li>
1415     <ul>
1416     <li>
1417         <a target="_blank" href="/entrez/utils/fref.fcgi?
1418         itool=Gene_FullReport&PrId=5746&uid=25386&nlmid=&db=gene&url=
1419         http://www.genenetwork.org/webqtl/WebQTL.py?
1420         cmd=sch&geneid=25386&species=rat">
1421         <span>Records for gene expression in Rat</span>
1422     </li>
1423     <li>
1424         <a target="_blank" href="/entrez/utils/fref.fcgi?
1425         itool=Gene_FullReport&PrId=7557&uid=25386&nlmid=&db=gene&url=
1426         https://www.genevestigator.com/gv/directlink.jsp?
1427         geneIDs=25386&geneIDType=Entrez_Gene&source=NCBI">GENEVESTIGATOR</a>
1428     </li>
1429     <li>
1430         <a target="_blank" href="/entrez/utils/fref.fcgi?
1431         itool=Gene_FullReport&PrId=5628&uid=25386&nlmid=&db=gene&url=
1432         https://analysis.ingenuity.com/pa/api/v2/geneview?
1433         geneidtype=entrezgene&geneid=25386&applicationname=Entrez">Ingenuity
1434         Pathways Analysis</a>
1435     </li>
1436     </ul>
1437 </div>
1438 <div class="linkout">
1439     <a class="jig-ncbitoggler main">
1440     <span>Research Materials</span>
1441     </a>
1442     <ul>
1443     <li>ExactAntigen/Labome</li>
1444     <ul>
1445     <li>
1446         <a target="_blank" href="/entrez/utils/fref.fcgi?
1447         itool=Gene_FullReport&PrId=5753&uid=25386&nlmid=&db=gene&url=
1448         http://www.labome.com/gene/rat/aquaporin-2-antibody.html">
1449         <span>antibody</span>
1450     </a>
1451     </li>
1452     <li>
1453         <a target="_blank" href="/entrez/utils/fref.fcgi?
1454         itool=Gene_FullReport&PrId=5753&uid=25386&nlmid=&db=gene&url=
1455         http://www.labome.com/review/gene/rat/aquaporin-2-antibody-all-methods.html">
1456         <span>antibody review</span>
1457     </a>
1458     </li>
1459     </ul>
1460     </ul>
1461 </div>
```

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1444         </li>
1445         <li>
1446             <a target="_blank" href="/entrez/utils/fref.fcgi?
itool=Gene_FullReport&PrId=5753&uid=25386&nlmid=&db=gene&url=
http://www.labome.com/gene/rat/aquaporin-2-cDNA.html">
1447                 <span>cDNA clone/miRNA-related clone</span>
1448             </a>
1449         </li>
1450         <li>
1451             <a target="_blank" href="/entrez/utils/fref.fcgi?
itool=Gene_FullReport&PrId=5753&uid=25386&nlmid=&db=gene&url=
http://www.labome.com/gene/rat/aquaporin-2-protein.html">
1452                 <span>protein and peptide</span>
1453             </a>
1454         </li>
1455     </ul>
1456 </div>
1457 </div>
1458 </div>
1459
1460 </div>
1461 </div>
1462 </div>
1463 </div>
1464
1465         <div class="title_and_pager bottom">
1466
1467         </div>
1468
1469     </div>
1470 </div>
1471 <div class="supplemental">
1472     <h2 class="offscreen_noflow">Supplemental Content</h2>
1473
1474     <div id="gene-sidebar">
1475     <div>
1476
1477         <div class="portlet brieflink">
1478     <div class="portlet_head">
1479         <div class="portlet_title">
1480             <h3>Table of contents</h3>
1481         </div>
1482         <a
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_RVFullReport.Gene_RightCo
lumn.Gene_TableOfContents.Shutter" sid="1" href="#" class="portlet_shutter"
title="Show/hide content" remembercollapsed="true"
pgsec_name="Gene_TableOfContents"
id="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_RVFullReport.Gene_RightColu
mn.Gene_TableOfContents.Shutter"></a>
1483     </div>
1484     <div class="portlet_content">
1485     <ul>
1486         <li>
1487             <a href="#geneSummary">Summary</a>
1488         </li>
1489         <li>
1490             <a href="#geneGenomic regions, transcripts, and products">Genomic regions,
```

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transcripts, and products</a>
1491     </li>
1492     <li>
1493         <a href="#geneGenomic context">Genomic context</a>
1494     </li>
1495     <li>
1496         <a href="#geneBibliography">Bibliography</a>
1497     </li>
1498     <li>
1499         <a href="#geneInteractions">Interactions</a>
1500     </li>
1501     <li>
1502         <a href="#geneGeneral gene info">General gene info</a>
1503     </li>
1504     <li>
1505         <a href="#geneGeneral protein info">General protein info</a>
1506     </li>
1507     <li>
1508         <a href="#geneReference sequences">Reference sequences</a>
1509     </li>
1510     <li>
1511         <a href="#geneRelated sequences">Related sequences</a>
1512     </li>
1513     <li>
1514         <a href="#geneAdditional links">Additional links</a>
1515     </li>
1516 </ul>
1517 </div>
1518 </div>
1519
1520     <div class="portlet brieflink">
1521 <div class="portlet_head">
1522     <div class="portlet_title">
1523         <h3>Links</h3>
1524     </div>
1525     <a
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_RVFullReport.Gene_RightCo
lumn.Gene_LinksOne.Shutter" sid="1" href="#" class="portlet_shutter"
title="Show/hide content" remembercollapsed="true" pgsec_name="Gene_LinksOne"
id="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_RVFullReport.Gene_RightColu
mn.Gene_LinksOne.Shutter"></a>
1526 </div>
1527 <div class="portlet_content">
1528 <ul>
1529     <li>
1530         <a href="/genome/clone/orderclone.cgi?db=gene&uid=25386">Order cDNA
clone</a>
1531     </li>
1532     <li>
1533         <a href="/gene?
Db=biosystems&DbFrom=gene&Cmd=Link&LinkName=gene_biosystems&LinkR
eadableName=BioSystems&IdsFromResult=25386">BioSystems</a>
1534     </li>
1535     <li>
1536         <a href="/gene?
Db=cdd&DbFrom=gene&Cmd=Link&LinkName=gene_cdd&LinkReadableName=Co
nserved%20Domains&IdsFromResult=25386">Conserved Domains</a>

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1537     </li>
1538     <li>
1539         <a href="/gene?
Db=pmc&DbFrom=gene&Cmd=Link&LinkName=gene_pmc&LinkReadableName=Fu
ll%20text%20in%20PMC&IdsFromResult=25386">Full text in PMC</a>
1540     </li>
1541     <li>
1542         <a href="/gene?
Db=geo&DbFrom=gene&Cmd=Link&LinkName=gene_geo&LinkReadableName=GE
O%20Profiles&IdsFromResult=25386">GEO Profiles</a>
1543     </li>
1544     <li>
1545         <a href="/gene?
Db=genome&DbFrom=gene&Cmd=Link&LinkName=gene_genome&LinkReadableN
ame=Genome&IdsFromResult=25386">Genome</a>
1546     </li>
1547     <li>
1548         <a href="/gene?
Db=homologene&DbFrom=gene&Cmd=Link&LinkName=gene_homologene&LinkR
eadableName=HomoloGene&IdsFromResult=25386">HomoloGene</a>
1549     </li>
1550     <li>
1551         <a href="/mapview/map_search.cgi?
direct=on&idtype=gene&id=25386">Map Viewer</a>
1552     </li>
1553     <li>
1554         <a href="/gene?
Db=nucore&DbFrom=gene&Cmd=Link&LinkName=gene_nucore&LinkReadabl
eName=Nucleotide&IdsFromResult=25386">Nucleotide</a>
1555     </li>
1556     <li>
1557         <a href="/gene?
Db=omia&DbFrom=gene&Cmd=Link&LinkName=gene_omia&LinkReadableName=
OMIA&IdsFromResult=25386">OMIA</a>
1558     </li>
1559     <li>
1560         <a href="/gene?
Db=probe&DbFrom=gene&Cmd=Link&LinkName=gene_probe&LinkReadableNam
e=Probe&IdsFromResult=25386">Probe</a>
1561     </li>
1562     <li>
1563         <a href="/gene?
Db=protein&DbFrom=gene&Cmd=Link&LinkName=gene_protein&LinkReadabl
eName=Protein&IdsFromResult=25386">Protein</a>
1564     </li>
1565     <li>
1566         <a href="/gene?
Db=pccompound&DbFrom=gene&Cmd=Link&LinkName=gene_pccompound&LinkR
eadableName=PubChem%20Compound&IdsFromResult=25386">PubChem Compound</a>
1567     </li>
1568     <li>
1569         <a href="/gene?
Db=pcsubstance&DbFrom=gene&Cmd=Link&LinkName=gene_pcsubstance&Lin
kReadableName=PubChem%20Substance&IdsFromResult=25386">PubChem Substance</a>
1570     </li>
1571     <li>
1572         <a href="/gene?
```

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Db=pubmed&DbFrom=gene&Cmd=Link&LinkName=gene_pubmed&LinkReadableName=PubMed&IdsFromResult=25386">PubMed</a>
1573     </li>
1574     <li>
1575         <a href="/gene?
Db=pubmed&DbFrom=gene&Cmd=Link&LinkName=gene_pubmed_rif&LinkReadableName=PubMed%20(GeneRIF)&IdsFromResult=25386">PubMed (GeneRIF)</a>
1576     </li>
1577     <li>
1578         <a href="/gene?
Db=protein&DbFrom=gene&Cmd=Link&LinkName=gene_protein_refseq&LinkReadableName=RefSeq%20Proteins&IdsFromResult=25386">RefSeq Proteins</a>
1579     </li>
1580     <li>
1581         <a href="/gene?
Db=nucore&DbFrom=gene&Cmd=Link&LinkName=gene_nucore_refseqrna&LinkReadableName=RefSeq%20RNAs&IdsFromResult=25386">RefSeq RNAs</a>
1582     </li>
1583     <li>
1584         <a href="/gene?
Db=snp&DbFrom=gene&Cmd=Link&LinkName=gene_snp&LinkReadableName=SNP&IdsFromResult=25386">SNP</a>
1585     </li>
1586     <li>
1587         <a href="http://www.ncbi.nlm.nih.gov/SNP/snp_ref.cgi?locusId=25386">SNP:
GeneView</a>
1588     </li>
1589     <li>
1590         <a href="http://www.ncbi.nlm.nih.gov/SNP/CGI/genesnpview.cgi?
report=genotype&fromdb=gene&id=25386">SNP: Genotype</a>
1591     </li>
1592     <li>
1593         <a href="/gene?
Db=taxonomy&DbFrom=gene&Cmd=Link&LinkName=gene_taxonomy&LinkReadableName=Taxonomy&IdsFromResult=25386">Taxonomy</a>
1594     </li>
1595     <li>
1596         <a href="/gene?
Db=unists&DbFrom=gene&Cmd=Link&LinkName=gene_unists&LinkReadableName=UniSTS&IdsFromResult=25386">UniSTS</a>
1597     </li>
1598     <li>
1599         <a href="/gene?
Db=unigene&DbFrom=gene&Cmd=Link&LinkName=gene_unigene&LinkReadableName=UniGene&IdsFromResult=25386">UniGene</a>
1600     </li>
1601     <li>
1602         <a href="/gene?
Cmd=ShowLinkOut&Db=gene&TermToSearch=25386">LinkOut</a>
1603     </li>
1604 </ul>
1605 </div>
1606 </div>
1607
1608     <div class="portlet brieflink">
1609         <div class="portlet_head">
1610             <div class="portlet_title">

```

```
1611     <h3>Links to external resources</h3>
1612   </div>
1613   <a
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_RVFullReport.Gene_RightCo
lumn.Gene_LinksTwo.Shutter" sid="1" href="#" class="portlet_shutter"
title="Show/hide content" remembercollapsed="true" pgsec_name="Gene_LinksTwo"
id="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_RVFullReport.Gene_RightColu
mn.Gene_LinksTwo.Shutter"></a>
1614 </div>
1615 <div class="portlet_content">
1616   <ul>
1617     <li>
1618       <a href="http://rgd.mcw.edu/generalSearch/RgdSearch.jsp?
quickSearch=1&searchKeyword=2142">RGD</a>
1619     </li>
1620     <li>
1621       <a href="http://www.ensembl.org/Rattus_norvegicus/geneview?
gene=ENSRNOG00000000297">Ensembl</a>
1622     </li>
1623     <li>
1624       <a href="http://ratmap.gen.gu.se/ShowSingleLocus.htm?
accno=41271">RATMAP</a>
1625     </li>
1626     <li>
1627       <a href="http://www.ncbi.nlm.nih.gov/sutils/evv.cgi?
taxid=10116&contig=NW_047784.1&gene=Aqp2&lid=25386&from=5053840&a
mp;to=5058876">Evidence Viewer</a>
1628     </li>
1629     <li>
1630       <a href="http://www.ncbi.nlm.nih.gov/mapview/modelmaker.cgi?
taxid=10116&contig=NW_047784.1&from=5053840&to=5058876&gene=Aqp2&
amp;lid=25386">ModelMaker</a>
1631     </li>
1632     <li>
1633       <a href="http://genome.ucsc.edu/cgi-bin/hgTracks?
org=rat&position=NW_012909">UCSC</a>
1634     </li>
1635     <li>
1636       <a href="http://mgc.nci.nih.gov/Genes/CloneList?
ORG=Rn&LIST=BC128705">MGC</a>
1637     </li>
1638     <li>
1639       <a href="http://www.genome.jp/dbget-bin/www_bget?rno:25386">KEGG</a>
1640     </li>
1641   </ul>
1642 </div>
1643 </div>
1644
1645   <div class="portlet_brieflink">
1646     <div class="portlet_head">
1647       <div class="portlet_title">
1648         <h3>General information</h3>
1649       </div>
1650     <a
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_RVFullReport.Gene_RightCo
lumn.Gene_GeneralInfo.Shutter" sid="1" href="#" class="portlet_shutter"
title="Show/hide content" remembercollapsed="true" pgsec_name="Gene_GeneralInfo"
```



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id="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_RVFullReport.Gene_RightColu
mn.Gene_GeneralInfo.Shutter"></a>
1651 </div>
1652 <div class="portlet_content">
1653 <ul>
1654 <li>
1655 <a href="http://www.pubmedcentral.nih.gov/articlerender.fcgi?
tool=pubmed&pubmedid=15608257">About Entrez Gene</a>
1656 </li>
1657 <li>
1658 <a
href="http://www.ncbi.nlm.nih.gov/entrez/query/static/help/genefaq.html">FAQ</a>
1659 </li>
1660 <li>
1661 <a href="ftp://ftp.ncbi.nlm.nih.gov/gene/">FTP site</a>
1662 </li>
1663 <li>
1664 <a
href="http://www.ncbi.nlm.nih.gov/entrez/query/static/help/genehelp.html">Help</a>
1665 >
1666 </li>
1667 <li>
1668 <a href="http://www.ncbi.nlm.nih.gov/books/bv.fcgi?
rid=handbook.chapter.ch19">NCBI Handbook</a>
1669 </li>
1670 <li>
1671 <a href="http://www.ncbi.nlm.nih.gov/projects/Gene/gentrez_stats.cgi">Statistics</a>
1672 </li>
1673 <li>
1674 <a href="http://www.ncbi.nlm.nih.gov/books/bv.fcgi?
rid=helpmyncbi.chapter.MyNCBI">My NCBI help</a>
1675 </li>
1676 </ul>
1677 </div>
1678 </div>
1679 <div class="portlet_brieflink">
1680 <div class="portlet_head">
1681 <div class="portlet_title">
1682 <h3>Related sites</h3>
1683 </div>
1684 <a
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_RVFullReport.Gene_RightCo
lumn.Gene_RelatedSites.Shutter" sid="1" href="#" class="portlet_shutter"
title="Show/hide content" remembercollapsed="true" pgsec_name="Gene_RelatedSites"
id="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_RVFullReport.Gene_RightColu
mn.Gene_RelatedSites.Shutter"></a>
1685 </div>
1686 <div class="portlet_content">
1687 <ul>
1688 <li>
1689 <a href="http://www.ncbi.nlm.nih.gov/BLAST">BLAST</a>
1690 </li>
1691 <li>
1692 <a href="http://www.ncbi.nlm.nih.gov/portal/query.fcgi?
p$site=entrez&DB=genome">Entrez Genome</a>
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1693     </li>
1694     <li>
1695         <a href="http://www.ncbi.nlm.nih.gov/portal/query.fcgi?
p$site=entrez&db=genomeprj">Genome Project</a>
1696     </li>
1697     <li>
1698         <a href="http://www.ncbi.nlm.nih.gov/Genomes">Genomic Biology</a>
1699     </li>
1700     <li>
1701         <a href="http://www.ncbi.nlm.nih.gov/projects/geo/">GEO</a>
1702     </li>
1703     <li>
1704         <a href="http://www.ncbi.nlm.nih.gov/portal/query.fcgi?
p$site=entrez&db=homologene">HomoloGene</a>
1705     </li>
1706     <li>
1707         <a href="http://www.ncbi.nlm.nih.gov/mapview/">Map Viewer</a>
1708     </li>
1709     <li>
1710         <a href="http://www.ncbi.nlm.nih.gov/portal/query.fcgi?
p$site=entrez&db=OMIM">OMIM</a>
1711     </li>
1712     <li>
1713         <a href="http://www.ncbi.nlm.nih.gov/portal/query.fcgi?
p$site=entrez&DB=probe">Probe</a>
1714     </li>
1715     <li>
1716         <a href="http://www.ncbi.nlm.nih.gov/RefSeq/">RefSeq</a>
1717     </li>
1718     <li>
1719         <a href="http://www.ncbi.nlm.nih.gov/portal/query.fcgi?
p$site=entrez&db=unigene">UniGene</a>
1720     </li>
1721     <li>
1722         <a href="http://www.ncbi.nlm.nih.gov/portal/query.fcgi?
p$site=entrez&DB=unists">UniSTS</a>
1723     </li>
1724 </ul>
1725 </div>
1726 </div>
1727
1728     <div class="portlet brieflink">
1729     <div class="portlet_head">
1730     <div class="portlet_title">
1731         <h3>Feedback</h3>
1732     </div>
1733     <a
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_RVFullReport.Gene_RightCo
lumn.Gene_Feedback.Shutter" sid="1" href="#" class="portlet_shutter"
title="Show/hide content" remembercollapsed="true" pgsec_name="Gene_Feedback"
id="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_RVFullReport.Gene_RightColu
mn.Gene_Feedback.Shutter"></a>
1734     </div>
1735     <div class="portlet_content">
1736     <ul>
1737     <li>
1738         <a href="mailto:info@ncbi.nlm.nih.gov?subject=Gene">Contact Help Desk</a>
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1739     </li>
1740     <li>
1741         <a href="http://www.ncbi.nlm.nih.gov/RefSeq/update.cgi?
geneid=2&symbol=A2M">Submit Correction</a>
1742     </li>
1743     <li>
1744         <a href="http://www.ncbi.nlm.nih.gov/projects/GeneRIF/GeneRIF.cgi?
lid=2&sym=A2M&name=alpha-2-macroglobulin&org=Homo
sapiens&url=/gene/2">Submit GeneRIF</a>
1745     </li>
1746 </ul>
1747 </div>
1748 </div>
1749
1750     <div class="portlet brieflink">
1751 <div class="portlet_head">
1752     <div class="portlet_title">
1753         <h3>Subscription</h3>
1754     </div>
1755     <a
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_RVFullReport.Gene_RightCo
lumn.Gene_Subscription.Shutter" sid="1" href="#" class="portlet_shutter"
title="Show/hide content" remembercollapsed="true" pgsec_name="Gene_Subscription"
id="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.Gene_RVFullReport.Gene_RightColu
mn.Gene_Subscription.Shutter"></a>
1756 </div>
1757 <div class="portlet_content">
1758 <ul>
1759     <li>
1760         <a href="http://www.ncbi.nlm.nih.gov/mailman/listinfo/refseq-
announce">RefSeq</a>
1761     </li>
1762     <li>
1763         <a href="http://www.ncbi.nlm.nih.gov/mailman/listinfo/gene-
announce">Gene</a>
1764     </li>
1765     <li>
1766         <a href="http://www.ncbi.nlm.nih.gov/mailman/listinfo/mapview-announce">Map
Viewer</a>
1767     </li>
1768 </ul>
1769 </div>
1770 </div>
1771
1772 </div>
1773
1774 <!--     <component id="Gene_RVFullReport.Gene_RightColMenuLinks"/>-->
1775     <div class="portlet">
1776 <div class="portlet_head">
1777     <div class="portlet_title">
1778         <h3>Recent activity</h3>
1779     </div>
1780     <a name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.HistoryDisplay.Shutter"
sid="1" href="#" class="portlet_shutter" title="Show/hide content"
remembercollapsed="true" pgsec_name="recent_activity"
id="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.HistoryDisplay.Shutter"></a>
1781 </div>
```

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1782     <div class="portlet_content">
1783         <div id="HTDisplay" class="">
1784             <input
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.HistoryDisplay.Cmd" sid="1"
type="hidden" />
1785             <div class="action">
1786                 <a
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.HistoryDisplay.ClearHistory"
sid="1"
realname="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.HistoryDisplay.ClearHistor
y" cmd="ClearHT" href="?cmd=ClearHT&" onclick="return false;"
id="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.HistoryDisplay.ClearHistory">
1787                     Clear
1788                 </a>
1789                 <a
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.HistoryDisplay.HistoryToggle"
sid="1"
realname="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.HistoryDisplay.HistoryTogg
le" class="HTOn" cmd="HTOff" href="?cmd=HTOff&" onclick="return false;"
id="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.HistoryDisplay.HistoryToggle">
1790                     Turn Off
1791                 </a>
1792                 <a
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.HistoryDisplay.HistoryToggle"
sid="2"
realname="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.HistoryDisplay.HistoryTogg
le" class="HTOff" cmd="HTOn" href="?cmd=HTOn&" onclick="return false;"
id="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.HistoryDisplay.HistoryToggle">
1793                     Turn On
1794                 </a>
1795             </div>
1796             <ul id="activity">
1797                 <li class="ra_rcd ralinkpopper two_line">
1798                     <a class="htb ralinkpopperctrl" ref="log$=activity"
href="/portal/utils/pageresolver.fcgi?recordid=1283478645441170">Aqp2 aquaporin 2
(collecting duct) [Rattus norvegicus]</a>
1799                     <div class="ralinkpop offscreen_noflow">Aqp2 aquaporin 2 (collecting
duct) [Rattus norvegicus]<div class="brieflinkpopdesc">Gene ID:25386</div></div>
1800                     <div class="tertiary">Gene</div>
1801                 </li>
1802                 <li class="ra_gry two_line">
1803                     <a class="htb" ref="log$=activity"
href="/portal/utils/pageresolver.fcgi?recordid=1283478627851055">aqp2 <span
class="number">(111)</span></a>
1804                     <div class="tertiary">Protein</div>
1805                 </li>
1806             </ul>
1807             <p class="HTOn">Your browsing activity is empty.</p>
1808             <p class="HTOff">Activity recording is turned off.</p>
1809             <p id="turnOn" class="HTOff">
1810                 <a
name="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.HistoryDisplay.HistoryOn"
sid="1"
realname="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.HistoryDisplay.HistoryOn"
cmd="HTOn" href="?cmd=HTOn&" onclick="return false;"
id="EntrezSystem2.PEntrez.Gene.Gene_ResultsPanel.HistoryDisplay.HistoryOn">Turn
recording back on</a>

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1811     </p>
1812     <a class="seemore" href="/sites/myncbi/recentactivity">See more...</a>
1813 </div>
1814 </div>
1815 </div>
1816
1817 </div>
1818 </div>
1819 </div>
1820
1821     <div id="NCBIFooter_dynamic">
1822     <div class="breadcrumbs">You are here:
1823         <span id="breadcrumb_text"><a href="/guide/">NCBI</a>
1824             &gt; <a href="http://www.ncbi.nlm.nih.gov/guide/genes-
expression/">Genes & Expression</a>
1825
1826             &gt; Gene</span></div>
1827     <a id="help-desk-link" class="help_desk" target="_blank" href="/sites/ehelp?
&Ncbi_App=entrez&Db=gene&Page=full_report&Snapshot=/projects/entr
ez/Entrez@4.328&Time=2010-09-02T21:50:45-04:00&Host=portal204"
onclick="window.open('/sites/ehelp?
&Ncbi_App=entrez&Db=gene&Page=full_report&Snapshot=/projects/entr
ez/Entrez@4.328&Time=2010-09-02T21:50:45-
04:00&Host=portal204','HelpDesk','resizable=no,scrollbars=yes,location=no,sta
tus=yes,menubar=no,top=50,left=200,width=720,height=695');return false;">Write to
the Help Desk</a>
1828     <noscript></noscript>
1829 </div>
1830 <div xmlns="http://www.w3.org/1999/xhtml" class="footer" id="footer"
xml:base="http://127.0.0.1/sites/static/header_footer/">
1831 <div class="crest"></div>
1832
1833 <div class="subfooter">
1834 <h2 class="offscreen_noflow">Simple NCBI Directory</h2>
1835 <ul class="foot_list" id="getting_started">
1836 <li><h3>Getting Started</h3></li>
1837
1838 <li><a href="/bookshelf/br.fcgi?book=helpcollect">NCBI Help
Manual</a></li>
1839 <li><a href="/books/bv.fcgi?rid=handbook.TOC&depth=2">NCBI
Handbook</a></li>
1840 <li><a href="/guide/training-tutorials/">Training &
Tutorials</a></li>
1841 </ul>
1842
1843 <ul class="foot_list" id="resources"><li><h3>
Resources
1844 </h3></li><li><a href="/guide/literature/">Literature</a></li><li><a
href="/guide/dna-rna/">DNA & RNA</a></li><li><a
href="/guide/proteins/">Proteins</a></li><li><a href="/guide/sequence-
analysis/">Sequence Analysis</a></li><li><a href="/guide/genes-expression/">Genes
& Expression</a></li><li><a href="/guide/genomes-maps/">Genomes &
Maps</a></li><li><a href="/guide/domains-structures/">Domains &
Structures</a></li><li><a href="/guide/genetics-medicine/">Genetics &
Medicine</a></li><li><a href="/guide/taxonomy/">Taxonomy</a></li><li><a

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href="/guide/data-software/">Data & Software</a></li><li><a
href="/guide/training-tutorials/">Training & Tutorials</a></li><li><a
href="/guide/homology/">Homology</a></li><li><a href="/guide/small-
molecules/">Small Molecules</a></li><li><a
href="/guide/variation/">Variation</a></li></ul>
1846     <ul class="foot_list" id="popular">
1847         <li><h3>Popular</h3></li>
1848         <li><a href="/pubmed/">PubMed</a></li>
1849         <li><a href="/nucleotide/">Nucleotide</a></li>
1850         <li><a href="http://blast.ncbi.nlm.nih.gov/">BLAST</a></li>
1851         <li><a href="http://www.pubmedcentral.nih.gov/"
class="newdomain">PubMed Central</a></li>
1852         <li><a href="/gene/">Gene</a></li>
1853         <li><a href="/books/">Bookshelf</a></li>
1854         <li><a href="/protein/">Protein</a></li>
1855         <li><a href="/omim/">OMIM</a></li>
1856         <li><a href="/genome/">Genome</a></li>
1857         <li><a href="/snp/">SNP</a></li>
1858         <li><a href="/Structure/">Structure</a></li>
1859     </ul>
1860     <ul class="foot_list" id="featured">
1861         <li><h3>Featured</h3></li>
1862         <li><a href="/Genbank/">GenBank</a></li>
1863         <li><a href="/refseq/">Reference Sequences</a></li>
1864         <li><a href="/mapview/">Map Viewer</a></li>
1865         <li><a href="/genomeprj">Genome Projects</a></li>
1866         <li><a href="/genome/guide/human/">Human Genome</a></li>
1867         <li><a href="/genome/guide/mouse/">Mouse Genome</a></li>
1868         <li><a href="/genomes/FLU/">Influenza Virus</a></li>
1869         <li><a href="/tools/primer-blast/">Primer-BLAST</a></li>
1870         <li><a href="/Traces/sra/">Sequence Read Archive</a></li>
1871     </ul>
1872     <ul class="foot_list" id="info">
1873         <li><h3>NCBI Information</h3></li>
1874         <li><a href="/About/">About NCBI</a></li>
1875         <li><a href="/CBBresearch/">Research at NCBI</a></li>
1876         <li><a href="/bookshelf/br.fcgi?book=newsnhci">NCBI
Newsletter</a></li>
1877         <li><a href="/Ftp/">NCBI FTP Site</a></li>
1878     </ul>
1879 </div>
1880
1881     <div id="ncbifooter" class="contact_info">
1882         <div id="footer-contents-right">
1883             <a href="http://www.nih.gov" title="NIH" class="nih_img_link
newdomain">NIH</a>
1885             <a href="http://www.dhhs.gov" title="DHHS" class="dhhs_img_link
newdomain">DHHS</a>
1886             <a href="http://www.usa.gov" title="USA.gov" class="usagov_img_link
newdomain">USA.gov</a>
1887
1888         </div>
1889         <div id="footer-contents-left">
1890
1891             <a href="/About/disclaimer.html">Copyright</a> | <a
href="/About/disclaimer.html#disclaimer">Disclaimer</a> |
```



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1892     <a href="http://www.nlm.nih.gov/privacy.html"
class="newdomain">Privacy</a> | <a
1893 href="/About/accessibility.html">Accessibility</a> | <a
1894 href="/About/glance/contact_info.html">Contact</a>
1895     <p class="address vcard">
1896         <span class="url">
1897             <a class="fn url newdomain"
href="http://www.ncbi.nlm.nih.gov">National Center for
1898             Biotechnology Information</a>,
1899         </span> <span class="org url"><a
href="http://www.nlm.nih.gov/">U.S. National Library of Medicine</a></span>
1900         <span class="adr">
1901             <span class="street-address">8600 Rockville Pike</span>,
1902             <span class="locality">Bethesda</span>
1903             <span class="region">MD</span>, <span class="postal-
code">20894</span>
1904             <span class="country-name">USA</span>
1905         </span>
1906     </p>
1907 </div>
1908 </div>
1909 </div>
1910     <input type="hidden" name="p$a" id="p$a" /><input type="hidden"
name="p$l" id="p$l" value="EntrezSystem2" /><input type="hidden" name="p$st"
id="p$st" value="gene" /><input name="SessionId" id="SessionId"
value="39694A9BC8053A61_0188SID" disabled="disabled" type="hidden" /><input
name="Snapshot" id="Snapshot" value="/projects/entrez/Entrez@4.328"
disabled="disabled" type="hidden" /></form>
1911 <!--
39694A9BC8053A61_0188SID:/projects/entrez/Entrez:4.328:portal204:v2.10.2.r202133:
Tue, Aug 24 2010 12:00:12--></body>
1912 </html>
```