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TARGAN Database
(Transcriptomic Atlas of ASD Risk Genes in Non-syndromic Autism)

Search

ENSEMBL ID or Gene Symbol



Example 1:

Search

FMR1



Note: Red colored text in each table is changeable in context of Gene Symbol/ASD Risk Gene. “Negative Value (-)” means “Downregulation” “Positive Value (+)” means “Upregulation”.

ASD Risk GeneGene Symbol: **FMR1**ENSEMBL ID: **ENSG00000102081**Gene Name: **fragileX mental retardation 1**Chromosome: **X**Genetic Category: **Rare Single Gene Mutation, Syndromic, Genetic Association, Functional**SFARI Gene-Score: **High Confidence/1**Syndromic: **Syndromic**Gene Biotype: **Protein Coding**Reference: SFARI Gene Database (<https://gene.sfari.org/database/human-gene/>)**Chart 1. Expression Signature of ASD Risk Gene in Whole Cerebral Cortex**

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Organ Type	Organ	Number of Samples		Experiment Details
								ASD	Control	
FMR1	High Confidence /1	-0.0647	0.0275	Down-regulation	Idiopathic ASD vs Control	Whole Cortex	Postmortem Cerebral Cortex	49	54	Click here

Chart 2. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)9

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical Region	Organ	Number of Samples		Experiment Details
								ASD	Control	
FMR1	High Confidence /1	-0.0779	0.13	Down-regulation	Idiopathic ASD vs Control	BA9	Postmortem Cerebral Cortex	41	45	Click here

Chart 3. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)44/45

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical Region	Organ	Number of Samples		Experiment Details
								ASD	Control	
FMR1	High Confidence /1	-0.0336	0.833	Down-regulation	Idiopathic ASD vs Control	BA44/45	Postmortem Cerebral Cortex	27	19	Click here

Chart 4. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)24

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical Region	Organ	Number of Samples		Experiment Details
								ASD	Control	
FMR1	High Confidence /1	-0.0718	0.526	Down-regulation	Idiopathic ASD vs Control	BA24	Postmortem Cerebral Cortex	30	18	Click here

Chart 5. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)4/6

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical Region	Organ	Number of Samples		Experiment Details
								ASD	Control	
FMR1	High Confidence /1	-0.057	0.495	Down-regulation	Idiopathic ASD vs Control	BA4/6	Postmortem Cerebral Cortex	28	27	Click here

Chart 6. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)38

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical Region	Organ	Number of Samples		Experiment Details
								ASD	Control	
FMR1	High Confidence /1	-0.0638	0.495	Down-regulation	Idiopathic ASD vs Control	BA38	Postmortem Cerebral Cortex	26	17	Click here

Chart 7. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)20/37

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical region	Organ	Number of Samples		Experiment Details
								ASD	Control	
FMR1	High Confidence /1	-0.0357	0.831	Down-regulation	Idiopathic ASD vs Control	BA20/37	Postmortem Cerebral Cortex	22	26	Click here

Chart 8. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)41/42/22

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical Region	Organ	Number of Samples		Experiment Details
								ASD	Control	
FMR1	High Confidence /1	-0.0361	0.527	Down-regulation	Idiopathic ASD vs Control	BA41/42/22	Postmortem Cerebral Cortex	40	33	Click here

Chart 9. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)3/1/2/5

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical Region	Organ	Number of Samples		Experiment Details
								ASD	Control	
FMR1	High Confidence /1	-0.102	0.148	Down-regulation	Idiopathic ASD vs Control	BA3/1/2/5	Postmortem Cerebral Cortex	30	23	Click here

Chart 10. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)7

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical Region	Organ	Number of Samples		Experiment Details
								ASD	Control	
FMR1	High Confidence /1	-0.0761	0.193	Down-regulation	Idiopathic ASD vs Control	BA7	Postmortem Cerebral Cortex	35	29	Click here

Chart 11. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)39/40

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical Region	Organ	Number of Samples		Experiment Details
								ASD	Control	
FMR1	High Confidence /1	-0.0685	0.337	Down-regulation	Idiopathic ASD vs Control	BA39/40	Postmortem Cerebral Cortex	31	32	Click here

Chart 12. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)17

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical Region	Organ	Number of Samples		Experiment Details
								ASD	Control	
FMR1	High Confidence /1	-0.0894	0.0956	Down-regulation	Idiopathic ASD vs Control	BA17	Postmortem Cerebral Cortex	28	28	Click here

Chart 1. Experiment Summary

<div><div><div>Experiment Details</div><div>Clinical Manifestation: Idiopathic ASD and Neurotypical Control</div><div>Comparison Group: Idiopathic ASD Individuals vs Neurotypical Controls</div><div>Organ: Postmortem Cerebral Cortex</div><div>Comparing Organ Type: Whole Cortex</div><div>Number of Subjects/Samples: i. Idiopathic ASD Individuals (Cortex): 49 ii. Neurotypical Controls (Cortex): 54</div><div>Sample Characteristics: i. ASD Cortex: Frontal, Temporal, Parietal and Occipital Lobes ii. Control Cortex: Frontal, Temporal, Parietal and Occipital Lobes</div><div>Data Type: RNA-seq</div><div>Gene Expression: mRNA</div><div>Species: Human</div><div>Experiment Name: Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD</div><div>References Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532-539.</div></div></div>

Chart 2. Experiment Summary

<div><div><div>Experiment Details</div><div>Clinical Manifestation: Idiopathic ASD and Neurotypical Control</div><div>Comparison Group: Idiopathic ASD Individuals vs Neurotypical Controls</div><div>Organ: Postmortem Cerebral Cortex</div><div>Comparing Cortical Region: Brodmann Area 9</div><div>Number of Subjects/Samples: i. Brodmann Area 9 (Idiopathic ASD): 41 ii. Brodmann Area 9 (Control): 45</div><div>Sample Characteristics: i. ASD Cortex: Brodmann Area 9 in Frontal Lobe ii. Control Cortex: Brodmann Area 9 in Frontal Lobe</div><div>Data Type: RNA-seq</div><div>Gene Expression: mRNA</div><div>Species: Human</div><div>Experiment Name: Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD</div><div>References Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532-539.</div></div></div>

Chart 3. Experiment Summary

Experiment Details
Clinical Manifestation: Idiopathic ASD and Neurotypical Control
Comparison Group: Idiopathic ASD Individuals vs Neurotypical Controls
Organ: Postmortem Cerebral Cortex
Comparing Cortical Region: Brodmann Area 44/45
Number of Subjects/Samples: i. Brodmann Area 44/45 (Idiopathic ASD): 27 ii. Brodmann Area 44/45 (Control): 19
Sample Characteristics: i. ASD Cortex: Brodmann Area 44/45 in Frontal Lobe ii. Control Cortex: Brodmann Area 44/45 in Frontal Lobe
Data Type: RNA-seq
Gene Expression: mRNA
Species: Human
Experiment Name: Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD
References Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532539.

Chart 4. Experiment Summary

Experiment Details
Clinical Manifestation: Idiopathic ASD and Neurotypical Control
Comparison Group: Idiopathic ASD Individuals vs Neurotypical Controls
Organ: Postmortem Cerebral Cortex
Comparing Cortical Region: Brodmann Area 24
Number of Subjects/Samples: i. Brodmann Area 24 (Idiopathic ASD): 30 ii. Brodmann Area 24 (Control): 18
Sample Characteristics: i. ASD Cortex: Brodmann Area 24 in Frontal Lobe ii. Control Cortex: Brodmann Area 24 in Frontal Lobe
Data Type: RNA-seq
Gene Expression: mRNA
Species: Human
Experiment Name: Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD
References Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532539.

Chart 5. Experiment Summary

<div><div>Experiment Details</div><div>Clinical Manifestation: Idiopathic ASD and Neurotypical Control</div><div>Comparison Group: Idiopathic ASD Individuals vs Neurotypical Controls</div><div>Organ: Postmortem Cerebral Cortex</div><div>Comparing Cortical Region: Brodmann Area 4/6</div><div>Number of Subjects/Samples:<div><div>i.</div><div>Brodmann Area 4/6 (Idiopathic ASD): 28</div></div><div><div>ii.</div><div>Brodmann Area 4/6 (Control): 27</div></div></div><div>Sample Characteristics:<div><div>i.</div><div>ASD Cortex: Brodmann Area 4/6 in Frontal Lobe</div></div><div><div>ii.</div><div>Control Cortex: Brodmann Area 4/6 in Frontal Lobe</div></div></div><div>Data Type: RNA-seq</div><div>Gene Expression: mRNA</div><div>Species: Human</div><div>Experiment Name: Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD</div><div>References Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532-539.</div></div>
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Chart 6. Experiment Summary

<div><div>Experiment Details</div><div>Clinical Manifestation: Idiopathic ASD and Neurotypical Control</div><div>Comparison Group: Idiopathic ASD Individuals vs Neurotypical Controls</div><div>Organ: Postmortem Cerebral Cortex</div><div>Comparing Cortical Region: Brodmann Area 38</div><div>Number of Subjects/Samples:<div><div>i.</div><div>Brodmann Area 38 (Idiopathic ASD): 26</div></div><div><div>ii.</div><div>Brodmann Area 38 (Control): 17</div></div></div><div>Sample Characteristics:<div><div>i.</div><div>ASD Cortex : Brodmann Area 38 in Temporal Lobe</div></div><div><div>ii.</div><div>Control Cortex: Brodmann Area 38 in Temporal Lobe</div></div></div><div>Data Type: RNA-seq</div><div>Gene Expression: mRNA</div><div>Species: Human</div><div>Experiment Name: Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD</div><div>References Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532-539.</div></div>
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Chart 7. Summary

<div><div>Experiment Details</div><div>Clinical Manifestation: Idiopathic ASD and Neurotypical Control</div><div>Comparison Group: Idiopathic ASD Individuals vs Neurotypical Controls</div><div>Organ: Postmortem Cerebral Cortex</div><div>Comparing Cortical Region: Brodmann Area 20/37</div><div>Number of Subjects/Samples: i. Brodmann Area 20/37 (Idiopathic ASD): 22 ii. Brodmann Area 20/37 (Control): 26</div><div>Sample Characteristics: i. ASD Cortex: Brodmann Area 20/37 in Temporal Lobe ii. Control Cortex: Brodmann Area 20/37 in Temporal Lobe</div><div>Data Type: RNA-seq</div><div>Gene Expression: mRNA</div><div>Species: Human</div><div>Experiment Name: Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD</div><div>References Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532-539.</div></div>
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Chart 8. Experiment Summary

<div><div>Experiment Details</div><div>Clinical Manifestation: Idiopathic ASD and Neurotypical Control</div><div>Comparison Group: Idiopathic ASD Individuals vs Neurotypical Controls</div><div>Organ: Postmortem Cerebral Cortex</div><div>Comparing Cortical region: Brodmann Area 41/42/22</div><div>Number of Subjects/Samples: i. Brodmann Area 41/42/22 (Idiopathic ASD): 40 ii. Brodmann Area 41/42/22 (Control): 33</div><div>Sample Characteristics: i. ASD Cortex: Brodmann Area 41/42/22 in Temporal Lobe ii. Control Cortex: Brodmann Area 41/42/22 in Temporal Lobe</div><div>Data Type: RNA-seq</div><div>Gene Expression: mRNA</div><div>Species: Human</div><div>Experiment Name: Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD</div><div>References Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532-539.</div></div>

Chart 9. Experiment Summary

<div><div>Experiment Details</div><div><div>Clinical Manifestation:</div><div>Idiopathic ASD and Neurotypical Control</div><div>Comparison Group:</div><div>Idiopathic ASD Individuals vs Neurotypical Controls</div><div>Organ:</div><div>Postmortem Cerebral Cortex</div><div>Comparing Cortical Region:</div><div>Brodmann Area 3/1/2/5</div><div>Number of Subjects/Samples:</div><div><div>i.</div><div>Brodmann Area 3/1/2/5 (Idiopathic ASD): 30</div></div><div><div>ii.</div><div>Brodmann Area 3/1/2/5 (Control): 23</div></div><div>Sample Characteristics:</div><div><div>i.</div><div>ASD Cortex: Brodmann Area 3/1/2/5 in Parietal Lobe</div></div><div><div>ii.</div><div>Control Cortex: Brodmann Area 3/1/2/5 in Parietal Lobe</div></div><div>Data Type:</div><div>RNA-seq</div><div>Gene Expression:</div><div>mRNA</div><div>Species:</div><div>Human</div><div>Experiment Name:</div><div>Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD</div><div>References</div><div>Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532-539.</div></div></div>

Chart 10. Experiment Summary

<div><div>Experiment Details</div><div><div>Clinical Manifestation:</div><div>Idiopathic ASD and Neurotypical Control</div><div>Comparison Group:</div><div>Idiopathic ASD Individuals vs Neurotypical Controls</div><div>Organ:</div><div>Postmortem Cerebral Cortex</div><div>Comparing Cortical region:</div><div>Brodmann Area 7</div><div>Number of Subjects/Samples:</div><div><div>i.</div><div>Brodmann Area 7 (Idiopathic ASD): 35</div></div><div><div>ii.</div><div>Brodmann Area 7 (Control): 29</div></div><div>Sample Characteristics:</div><div><div>i.</div><div>Idiopathic ASD Cortex : Brodmann Area 7 in Parietal Lobe</div></div><div><div>ii.</div><div>Neurotypical Control : Brodmann Area 7 in Parietal Lobe</div></div><div>Data Type:</div><div>RNA-seq</div><div>Gene Expression:</div><div>mRNA</div><div>Species:</div><div>Human</div><div>Experiment Name:</div><div>Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD</div><div>References</div><div>Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532-539.</div></div></div>
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Chart 11. Experiment Summary

<div><div>Experiment Details</div><div>Clinical Manifestation: Idiopathic ASD and Neurotypical Control</div><div>Comparison Group: Idiopathic ASD Individuals vs Neurotypical Controls</div><div>Organ: Postmortem Cerebral Cortex</div><div>Comparing Cortical Region: Brodmann Area 39/40</div><div>Number of Subjects/Samples: i. Brodmann Area 39/40 (Idiopathic ASD): 31 ii. Brodmann Area 39/40 o(Control): 32</div><div>Sample Characteristics: i. ASD Cortex: Brodmann Area 39/40 in Parietal Lobe ii. Control Cortex: Brodmann Area 39/40 in Parietal Lobe</div><div>Data Type: RNA-seq</div><div>Gene Expression: mRNA</div><div>Species: Human</div><div>Experiment Name: Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD</div><div>References Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532-539.</div></div>

Chart 12. Experiment Summary

<div><div>Experiment Details</div><div>Clinical Manifestation: Idiopathic ASD and Neurotypical Control</div><div>Comparison Group: Idiopathic ASD Individuals vs Neurotypical Controls</div><div>Organ: Postmortem Cerebral Cortex</div><div>Comparing Cortical Region: Brodmann Area 17</div><div>Number of Subjects/Samples: i. Brodmann Area 17 of (Idiopathic ASD): 28 ii. Brodmann Area 17 of (Control): 28</div><div>Sample Characteristics: i. Idiopathic ASD Cortex : Brodmann Area 17 in Occipital Lobe ii. Neurotypical Control: Brodmann Area 17 in Occipital Lobe</div><div>Data Type: RNA-seq</div><div>Gene Expression: mRNA</div><div>Species: Human</div><div>Experiment Name: Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD</div><div>References Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532-539.</div></div>

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TARGAN Database
(Transcriptomic Atlas of ASD Risk Genes in Non-syndromic Autism)

Search

ENSEMBL ID or Gene Symbol



Example 1:

Search

LAS1L



Note: Red colored text in each table is changeable in context of Gene Symbol/ASD Risk Gene. “Negative Value (-)” means “Downregulation” “Positive Value (+)” means “Upregulation”.

ASD Risk GeneGene Symbol: **LAS1L**ENSEMBL ID: **ENSG00000001497**Gene Name: **LAS1 like ribosome biogenesis factor**Chromosome: **X**Genetic Category: **Rare Single Gene Mutation, Syndromic**SFARI Gene-Score: **Suggestive Evidence/3**Syndromic: **NA**Gene Biotype: **Protein Coding**Reference: SFARI Gene Database (<https://gene.sfari.org/database/human-gene/>)**Chart 1. Expression Signatures of ASD Risk Gene in Whole Cerebral Cortex**

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Organ Type	Organ	Number of Samples		Experiment Details
								ASD	Control	
LAS1L	Suggestive Evidence/3	-0.029	0.667	Down-regulation	Idiopathic ASD vs Control	Whole Cortex	Postmortem Cerebral Cortex	338	297	Click here

Chart 2. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)9

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical Region	Organ	Number of Samples		Experiment Details
								ASD	Control	
LAS1L	Suggestive Evidence/3	-0.0542	0.613	Down-regulation	Idiopathic ASD vs Control	BA9	Postmortem Cerebral Cortex	41	45	Click here

Chart 3. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)44/45

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical Region	Organ	Number of Samples		Experiment Details
								ASD	Control	
LAS1L	Suggestive Evidence/3	-0.0967	0.641	Down-regulation	Idiopathic ASD vs Control	BA44/45	Postmortem Cerebral Cortex	27	19	Click here

Chart 4. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)24

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical Region	Organ	Number of Samples		Experiment Details
								ASD	Control	
LAS1L	Suggestive Evidence/3	0.0202	0.941	Up-regulation	Idiopathic ASD vs Control	BA24	Postmortem Cerebral Cortex	30	18	Click here

Chart 5. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)4/6

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical Region	Organ	Number of Samples		Experiment Details
								ASD	Control	
LAS1L	Suggestive Evidence/3	-0.035	0.837	Down-regulation	Idiopathic ASD vs Control	BA4/6	Postmortem Cerebral Cortex	28	27	Click here

Chart 6. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)38

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical Region	Organ	Number of Samples		Experiment Details
								ASD	Control	
LAS1L	Suggestive Evidence/3	-0.0206	0.925	Down-regulation	Idiopathic ASD vs Control	BA38	Postmortem Cerebral Cortex	26	17	Click here

Chart 7. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)20/37

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical region	Organ	Number of Samples		Experiment Details
								ASD	Control	
LAS1L	Suggestive Evidence/3	0.0837	0.729	Up-regulation	Idiopathic ASD vs Control	BA20/37	Postmortem Cerebral Cortex	22	26	Click here

Chart 8. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)41/42/22

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical Region	Organ	Number of Samples		Experiment Details
								ASD	Control	
LAS1L	Suggestive Evidence/3	0.0214	0.859	Up-regulation	Idiopathic ASD vs Control	BA41/42/22	Postmortem Cerebral Cortex	40	33	Click here

Chart 9. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)3/1/2/5

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical Region	Organ	Number of Samples		Experiment Details
								ASD	Control	
LAS1L	Suggestive Evidence/3	-0.0419	0.781	Down-regulation	Idiopathic ASD vs Control	BA3/1/2/5	Postmortem Cerebral Cortex	30	23	Click here

Chart 10. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)7

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical Region	Organ	Number of Samples		Experiment Details
								ASD	Control	
LAS1L	Suggestive Evidence/3	-0.0972	0.329	Down-regulation	Idiopathic ASD vs Control	BA7	Postmortem Cerebral Cortex	35	29	Click here

Chart 11. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)39/40

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical Region	Organ	Number of Samples		Experiment Details
								ASD	Control	
LAS1L	Suggestive Evidence/3	-0.0939	0.427	Down-regulation	Idiopathic ASD vs Control	BA39/40	Postmortem Cerebral Cortex	31	32	Click here

Chart 12. Expression Signatures of ASD Risk Gene in Brodmann Area (BA)17

ASD Risk Gene	SFARI Gene Score	Log ₂ FC	FDR	Expression Pattern	Comparison Group	Comparing Cortical Region	Organ	Number of Samples		Experiment Details
								ASD	Control	
LAS1L	Suggestive Evidence/3	-0.0054	0.97	Down-regulation	Idiopathic ASD vs Control	BA17	Postmortem Cerebral Cortex	28	28	Click here

Chart 1. Experiment Summary

<div><div>Experiment Details</div><div><div>Clinical Manifestation:</div><div>Idiopathic ASD and Neurotypical Control</div><div>Comparison Group:</div><div>Idiopathic ASD Individuals vs Neurotypical Controls</div><div>Organ:</div><div>Postmortem Cerebral Cortex</div><div>Comparing Organ Type:</div><div>Whole Cortex</div><div>Number of Subjects/Samples:</div><div><div>i.</div><div>Idiopathic ASD Individuals (Cortex): 49</div></div><div><div>ii.</div><div>Neurotypical Controls (Cortex): 54</div></div><div>Sample Characteristics:</div><div><div>i.</div><div>ASD Cortex: Frontal, Temporal, Parietal and Occipital Lobes</div></div><div><div>ii.</div><div>Control Cortex: Frontal, Temporal, Parietal and Occipital Lobes</div></div><div>Data Type:</div><div>RNA-seq</div><div>Gene Expression:</div><div>mRNA</div><div>Species:</div><div>Human</div><div>Experiment Name:</div><div>Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD</div><div>References</div><div>Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532-539.</div></div></div>

Chart 2. Experiment Summary

<div><div>Experiment Details</div><div><div>Clinical Manifestation:</div><div>Idiopathic ASD and Neurotypical Control</div><div>Comparison Group:</div><div>Idiopathic ASD Individuals vs Neurotypical Controls</div><div>Organ:</div><div>Postmortem Cerebral Cortex</div><div>Comparing Cortical Region:</div><div>Brodmann Area 9</div><div>Number of Subjects/Samples:</div><div><div>i.</div><div>Brodmann Area 9 (Idiopathic ASD): 41</div></div><div><div>ii.</div><div>Brodmann Area 9 (Control): 45</div></div><div>Sample Characteristics:</div><div><div>i.</div><div>ASD Cortex: Brodmann Area 9 in Frontal Lobe</div></div><div><div>ii.</div><div>Control Cortex: Brodmann Area 9 in Frontal Lobe</div></div><div>Data Type:</div><div>RNA-seq</div><div>Gene Expression:</div><div>mRNA</div><div>Species:</div><div>Human</div><div>Experiment Name:</div><div>Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD</div><div>References</div><div>Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532-539.</div></div></div>

Chart 3. Experiment Summary

Experiment Details
Clinical Manifestation: Idiopathic ASD and Neurotypical Control
Comparison Group: Idiopathic ASD Individuals vs Neurotypical Controls
Organ: Postmortem Cerebral Cortex
Comparing Cortical Region: Brodmann Area 44/45
Number of Subjects/Samples: i. Brodmann Area 44/45 (Idiopathic ASD): 27 ii. Brodmann Area 44/45 (Control): 19
Sample Characteristics: i. ASD Cortex: Brodmann Area 44/45 in Frontal Lobe ii. Control Cortex: Brodmann Area 44/45 in Frontal Lobe
Data Type: RNA-seq
Gene Expression: mRNA
Species: Human
Experiment Name: Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD
References Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532539.

Chart 4. Experiment Summary

Experiment Details
Clinical Manifestation: Idiopathic ASD and Neurotypical Control
Comparison Group: Idiopathic ASD Individuals vs Neurotypical Controls
Organ: Postmortem Cerebral Cortex
Comparing Cortical Region: Brodmann Area 24
Number of Subjects/Samples: i. Brodmann Area 24 (Idiopathic ASD): 30 ii. Brodmann Area 24 (Control): 18
Sample Characteristics: i. ASD Cortex: Brodmann Area 24 in Frontal Lobe ii. Control Cortex: Brodmann Area 24 in Frontal Lobe
Data Type: RNA-seq
Gene Expression: mRNA
Species: Human
Experiment Name: Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD
References Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532539.

Chart 5. Experiment Summary

<div><div>Experiment Details</div><div>Clinical Manifestation: Idiopathic ASD and Neurotypical Control</div><div>Comparison Group: Idiopathic ASD Individuals vs Neurotypical Controls</div><div>Organ: Postmortem Cerebral Cortex</div><div>Comparing Cortical Region: Brodmann Area 4/6</div><div>Number of Subjects/Samples:<div><div>i.</div><div>Brodmann Area 4/6 (Idiopathic ASD): 28</div></div><div><div>ii.</div><div>Brodmann Area 4/6 (Control): 27</div></div></div><div>Sample Characteristics:<div><div>i.</div><div>ASD Cortex: Brodmann Area 4/6 in Frontal Lobe</div></div><div><div>ii.</div><div>Control Cortex: Brodmann Area 4/6 in Frontal Lobe</div></div></div><div>Data Type: RNA-seq</div><div>Gene Expression: mRNA</div><div>Species: Human</div><div>Experiment Name: Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD</div><div>References Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532-539.</div></div>
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Chart 6. Experiment Summary

<div><div>Experiment Details</div><div>Clinical Manifestation: Idiopathic ASD and Neurotypical Control</div><div>Comparison Group: Idiopathic ASD Individuals vs Neurotypical Controls</div><div>Organ: Postmortem Cerebral Cortex</div><div>Comparing Cortical Region: Brodmann Area 38</div><div>Number of Subjects/Samples:<div><div>i.</div><div>Brodmann Area 38 (Idiopathic ASD): 26</div></div><div><div>ii.</div><div>Brodmann Area 38 (Control): 17</div></div></div><div>Sample Characteristics:<div><div>i.</div><div>ASD Cortex : Brodmann Area 38 in Temporal Lobe</div></div><div><div>ii.</div><div>Control Cortex: Brodmann Area 38 in Temporal Lobe</div></div></div><div>Data Type: RNA-seq</div><div>Gene Expression: mRNA</div><div>Species: Human</div><div>Experiment Name: Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD</div><div>References Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532-539.</div></div>
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Chart 7. Summary

<div><div>Experiment Details</div><div>Clinical Manifestation: Idiopathic ASD and Neurotypical Control</div><div>Comparison Group: Idiopathic ASD Individuals vs Neurotypical Controls</div><div>Organ: Postmortem Cerebral Cortex</div><div>Comparing Cortical Region: Brodmann Area 20/37</div><div>Number of Subjects/Samples: i. Brodmann Area 20/37 (Idiopathic ASD): 22 ii. Brodmann Area 20/37 (Control): 26</div><div>Sample Characteristics: i. ASD Cortex: Brodmann Area 20/37 in Temporal Lobe ii. Control Cortex: Brodmann Area 20/37 in Temporal Lobe</div><div>Data Type: RNA-seq</div><div>Gene Expression: mRNA</div><div>Species: Human</div><div>Experiment Name: Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD</div><div>References Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532-539.</div></div>
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Chart 8. Experiment Summary

<div><div>Experiment Details</div><div>Clinical Manifestation: Idiopathic ASD and Neurotypical Control</div><div>Comparison Group: Idiopathic ASD Individuals vs Neurotypical Controls</div><div>Organ: Postmortem Cerebral Cortex</div><div>Comparing Cortical region: Brodmann Area 41/42/22</div><div>Number of Subjects/Samples: i. Brodmann Area 41/42/22 (Idiopathic ASD): 40 ii. Brodmann Area 41/42/22 (Control): 33</div><div>Sample Characteristics: i. ASD Cortex: Brodmann Area 41/42/22 in Temporal Lobe ii. Control Cortex: Brodmann Area 41/42/22 in Temporal Lobe</div><div>Data Type: RNA-seq</div><div>Gene Expression: mRNA</div><div>Species: Human</div><div>Experiment Name: Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD</div><div>References Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532-539.</div></div>

Chart 9. Experiment Summary

<div><div>Experiment Details</div><div><div>Clinical Manifestation:</div><div>Idiopathic ASD and Neurotypical Control</div><div>Comparison Group:</div><div>Idiopathic ASD Individuals vs Neurotypical Controls</div><div>Organ:</div><div>Postmortem Cerebral Cortex</div><div>Comparing Cortical Region:</div><div>Brodmann Area 3/1/2/5</div><div>Number of Subjects/Samples:</div><div><div>i.</div><div>Brodmann Area 3/1/2/5 (Idiopathic ASD): 30</div></div><div><div>ii.</div><div>Brodmann Area 3/1/2/5 (Control): 23</div></div><div>Sample Characteristics:</div><div><div>i.</div><div>ASD Cortex: Brodmann Area 3/1/2/5 in Parietal Lobe</div></div><div><div>ii.</div><div>Control Cortex: Brodmann Area 3/1/2/5 in Parietal Lobe</div></div><div>Data Type:</div><div>RNA-seq</div><div>Gene Expression:</div><div>mRNA</div><div>Species:</div><div>Human</div><div>Experiment Name:</div><div>Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD</div><div>References</div><div>Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532-539.</div></div></div>

Chart 10. Experiment Summary

<div><div>Experiment Details</div><div><div>Clinical Manifestation:</div><div>Idiopathic ASD and Neurotypical Control</div><div>Comparison Group:</div><div>Idiopathic ASD Individuals vs Neurotypical Controls</div><div>Organ:</div><div>Postmortem Cerebral Cortex</div><div>Comparing Cortical region:</div><div>Brodmann Area 7</div><div>Number of Subjects/Samples:</div><div><div>i.</div><div>Brodmann Area 7 (Idiopathic ASD): 35</div></div><div><div>ii.</div><div>Brodmann Area 7 (Control): 29</div></div><div>Sample Characteristics:</div><div><div>i.</div><div>Idiopathic ASD Cortex : Brodmann Area 7 in Parietal Lobe</div></div><div><div>ii.</div><div>Neurotypical Control : Brodmann Area 7 in Parietal Lobe</div></div><div>Data Type:</div><div>RNA-seq</div><div>Gene Expression:</div><div>mRNA</div><div>Species:</div><div>Human</div><div>Experiment Name:</div><div>Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD</div><div>References</div><div>Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532-539.</div></div></div>
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Chart 11. Experiment Summary

<div><div>Experiment Details</div><div><div>Clinical Manifestation:</div><div>Idiopathic ASD and Neurotypical Control</div><div>Comparison Group:</div><div>Idiopathic ASD Individuals vs Neurotypical Controls</div><div>Organ:</div><div>Postmortem Cerebral Cortex</div><div>Comparing Cortical Region:</div><div>Brodmann Area 39/40</div><div>Number of Subjects/Samples:</div><div><div>i. Brodmann Area 39/40 (Idiopathic ASD): 31</div><div>ii. Brodmann Area 39/40 o(Control): 32</div></div><div>Sample Characteristics:</div><div><div>i. ASD Cortex: Brodmann Area 39/40 in Parietal Lobe</div><div>ii. Control Cortex: Brodmann Area 39/40 in Parietal Lobe</div></div><div>Data Type:</div><div>RNA-seq</div><div>Gene Expression:</div><div>mRNA</div><div>Species:</div><div>Human</div><div>Experiment Name:</div><div>Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD</div><div>References</div><div>Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532-539.</div></div></div>
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Chart 12. Experiment Summary

<div><div>Experiment Details</div><div><div>Clinical Manifestation:</div><div>Idiopathic ASD and Neurotypical Control</div><div>Comparison Group:</div><div>Idiopathic ASD Individuals vs Neurotypical Controls</div><div>Organ:</div><div>Postmortem Cerebral Cortex</div><div>Comparing Cortical Region:</div><div>Brodmann Area 17</div><div>Number of Subjects/Samples:</div><div><div>i. Brodmann Area 17 of (Idiopathic ASD): 28</div><div>ii. Brodmann Area 17 of (Control): 28</div></div><div>Sample Characteristics:</div><div><div>i. Idiopathic ASD Cortex : Brodmann Area 17 in Occipital Lobe</div><div>ii. Neurotypical Control: Brodmann Area 17 in Occipital Lobe</div></div><div>Data Type:</div><div>RNA-seq</div><div>Gene Expression:</div><div>mRNA</div><div>Species:</div><div>Human</div><div>Experiment Name:</div><div>Broad Transcriptomic Dysregulation Occurs Across the Cerebral Cortex in ASD</div><div>References</div><div>Gandal MJ, Haney JR, Wamsley B, et al. Broad transcriptomic dysregulation occurs across the cerebral cortex in ASD. Nature. 2022;611(7936):532-539.</div></div></div>
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