**Supplementary File B**

**Protein sequences used for Figure 1.**

>NP\_001171818.1 magnesium transporter NIPA2 isoform a [Homo sapiens]

MSQGRGKYDFYIGLGLAMSSSIFIGGSFILKKKGLLRLARKGSMRAGQGGHAYLKEWLWWAGLLSMGAGE

VANFAAYAFAPATLVTPLGALSVLVSAILSSYFLNERLNLHGKIGCLLSILGSTVMVIHAPKEEEIETLN

EMSHKLGDPGFVVFATLVVIVALILIFVVGPRHGQTNILVYITICSVIGAFSVSCVKGLGIAIKELFAGK

PVLRHPLAWILLLSLIVCVSTQINYLNRALDIFNTSIVTPIYYVFFTTSVLTCSAILFKEWQDMPVDDVI

GTLSGFFTIIVGIFLLHAFKDVSFSLASLPVSFRKDEKAMNGNLSNMYEVLNNNEESLTCGIEQHTGENV

SRRNGNLTAF

>XP\_004068355.1 magnesium transporter NIPA2 isoform X2 [Oryzias latipes]

MGQDRGKYDFYIGLGLAISSSIFIGGSFILKKKGLLRLAKKGSTRAGQGGHAYLKEWLWWAGLLSMGAGE

AANFAAYAFAPATLVTPLGALSVLVSAVLSSYFLTERLNLHGKLGCMLSILGSTTMVIHAPKEEEISSLE

HMSKKLVDPGFVVFATLVVIVALIFIFVVGPRHGQTNILVYITICSVIGALSVSCVKGLGIAIKEAIAGT

NVVKNPLAWVLLFSLVGCVSTQINYLNKALDIFNTSLVTPIYYVFFTTSVLTCSAILFKEWEHMGADDVI

GTLSGFITIIVGIFLLHAFKDLNVSLAALAVSMRKDDRPFPVNGVTSHSTYELVHEESTEDMEEREMGPP

FDTISRRNGSMAS

>sp|Q5R7Q3.1|NIPA2\_PONAB RecName: Full=Magnesium transporter NIPA2; AltName: Full=Non-imprinted in Prader-Willi/Angelman syndrome region protein 2 homolog

MSQGRGKYDFYIGLGLAMSSSIFIGGSFILKKKGLLRLARKGSMRAGQGGHAYLKEWLWWAGLLSMGAGE

VANFAAYAFAPATLVTPLGALSVLVSAILSSYFLNERLNLHGKIGCLLSILGSTVMVIHAPKEEEIETLN

EMSHKLGDPGFVVFATLVVIVALILIFVVGPRHGQTNILVYITICSVIGAFSVSCVKGLGIAIKELFAGK

PVLRHPLAWILLLSLIVCVSTQINYLNRALDIFNTSIVTPIYYVFFTTSVLTCSAILFKEWQDMPVDDVI

GTLSGFFTIIVGIFLLHAFKDVSFSLASLPVSFRKDEKAMNGNLSNMYEVLNNNEESLTCGIEQHTGENV

SRRNGNLTAF

>NP\_001086011.1 NIPA magnesium transporter 2 S homeolog [Xenopus laevis]

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VANFAAYAFAPATLVTPLGALSVLVSAILSSYFLNEKLNLHGKIGCLLSIVGSTVMVIHAPQEEEIGSLN

EMAIKLADPGFLLFATAVVIASLILIFVVGPRHGQSNILVYISICSVIGALSVSCVKGLGIAIKGLFSGE

PVLRNPLSWILLLSLIVCVSTQINYLNRALDIFNTSIVTPIYYVFFTTSVLTCSAILFKEWQHMSANDMI

GTFSGFLTIVIGIFLLHAFKDIVFTLSNLPFSLRKDERTLNGSLSNNIYEHLNGDEESELSDSELHMTDT

LASRRNGTLASF

>XP\_060102283.1 magnesium transporter NIPA3 [Heteronotia binoei]

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TALAISSSIFIGSSFILKKKGLLRLAEKGALRAGQGGYLYLKEWLWWAGLLSMGIGEAANFAAYAFAPAT

LVTPLGALSVLVSAMLSSWFLNERLNIHGKMGCILCILGAIVILIHVPNEEEVASLDEMEPKLKDPVFIT

FAITILMICLVLICFVTPKFGQTNILVYIAICSLIGAFSVSSVKGLGIAIKDLWNHEPVFQSPLLYVFGV

VLVLSVSTQINYLNKSLDVFDTSLVTPIYYVFFTTTVVICSVILFKEWNSMTFGDIVGTLTGFLTIIIGI

FFLQAFKNVSVSWNQLTSATKKDSVLPVCGYVHHTLLENTETGDEDNTLFSQGNEQDGCH

>NP\_001384952.1 magnesium transporter NIPA2 isoform a [Gallus gallus]

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EMSNKLRDPGFVVFATLVVIVSLILIVVVGPRHGQTNILVYITICSVIGALSVSCVKGLGIAIKELFAGK

PVLKRPLSWILLLSLIVCVSTQINYLNRALDIFNTSIVTPIYYVIFTTSVLTCSAILFKEWQHMAADDII

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ANPVAWGLLGAVLACVMTQMNYLNKALDIFNTSLVTPIYYVMFTTLTIIASAILFREWEV

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