Supplement Fig. 1. Nucleotide sequence and deduced amino acid sequence of the cloned rat Mbnl2.

A. The locations of the two primers used of cloning are shown. ATG translation start site (TSS) and TAA translation termination site (TTS) are marked with an arrow. Primers used in rat Mbnl2 cloning are indicated. **B.** Deduced 361 amino acid sequence of rat Mbnl2. Peptide sequence (137-157) to generate Mbnl2 antiserum is indicated. **C.** Western blot with Mbnl2 antiserum raised against Mbnl2 internal sequence (137-157). Only one band around 40kDa appeared in the rat pineal gland, retina and Mbnl2 protein expressed in HEK293 cells. For further details, see Materials and Methods section.

Supp. Fig. 1

A.


GTGCCATCGTATTGAAGTCACTTTATTAAGGAGGGGGTGTATCCACAAAAACCGTCAGGAGACCA
Forward primer
GAACCCTGGGAGCCGGAGATGACAGTGAGTACACATTGCTTGTGGCTCACAGTCTTCCAGCGGG
GCCTGTGGATCGGTGACTGACTTCCTGCTTGCTGACACATTTCCCCTCCCCGGTTTCCTGGATTG
GACTGCATCAAGGAATTCATTACTTACCTTCCAACTTTCATGTTGGAGTTTTCACGGCAGTAGTTTC
GAGATCCTTGAGACTTGGATTGATTCCATCACTTAACACAAAGGAACCGAGCCCAAAGTAGTTCTC
ATCATGGCCTTGAACGTTGCCCCCGTGAGAGACACAAAGTGGCTGACGCTGGAAGTCTGCAGAC
TSS
AGTACCAGAGAGGAACGTGCTCACGCTCCGATGAAGAATGCAAATTCGCTCACCCCCCAAAAAGT
TGCCAGGTTGAAAATGGAAGAGTAATTGCCTGCTTTGATTCCCTCAAGGGCCGCTGTTCAAGAGA
GAACTGCAAATATCTTCATCCTCCAACACACCTAAAAACTCAGCTAGAAATCAATGGGAGGAACAA
TTTGATCCAGCAAAAAACTGCAGCAGCGATGCTTGCCCAGCAGATGCAATTCATGTTTCCAGGAA
CACCGCTCCACCCTGTGCCCACTTTTCCTGTAGGTCCCACCATAGGGACAAATGCGGCCATTAGC
TTTGCTCCTTACTTAGCGCCTGTCACCCCTGGAGTGGGGTTAGTCCCAACAGAGGTTCTACCCAC
CACACCTGTCATTGTTCCGGGAAGTCCGCCGGTCACTGTCCCGGGCTCAACTGCAACTCAGAAAC
TTCTCAGGACCGATAAACTGGAGGTATGCAGGGAGTTCCAGCGAGGAAACTGTGCCCGGGGAGA
GACAGACTGCCGCTTTGCACACCCGGCAGACAGCACCATGATCGACACAAACGACAACACCGTA
ACCGTTTGTATGGATTACATAAAGGGGCGTTGCATGAGGGAGAAATGCAAATATTTTCACCCTCCT
GCACACTTGCAGGCCAAAATCAAAGCTGCGCAGCACCAAGCCAACCAGGCCGCGGTGGCCGCC
CAGGCAGCCGCGGCCGCGGCCACAGTCATGGCCTTCCCTCCCGGTGCTCTTCACCCTTTACCAA
AGAGACAAGCACTTGAAAAAAGCAACGGAGCCAGCACGGTCTTCAACCCCAGCGTCTTGCACTAC
CAGCAGGCTTTGACCAGTGCGCAGTTGCAGCAACACACGGCGTTCATTCCCACAGATAATTCTGA
AATAATCAACAGAAATGGAATGGAATGCCAAGAATCTGCATTGAGAATAACTAAACATTGTTACTGT
ACATACTATCCCCTTTGCTCCTCAATAGAATTGCCACAAACTGCATGCTAAATTTAGTTCTTCCGGA
TTS
CAGACCGCAACCCTAAGGCTAGTTCTGCTATGTCATATACGAGTATTAAATATGGTATGCTTAGTA
TATTCCAGCCTAAGATAGTTAACTACCTGAGACCAGCTGCGATGTTCAAAGACATACAGGATGAGG
TTTTCTTTTACAGGGTTCTGAGCGTAGTTTCTGTCCCAGGAATATTGTCTTATCTCCATAACTATAG
CCGATGCAGAAAGCCCACCCAGTATACACATTTCGACTCAGAATACTTCAAATTTAGCAATAAGCA
GTTAGCTTTAGTTTAAGTACCTATTCCAAGGGCAGGTTCGATTCTAATTCCAATCACCACCATTTCA
TTTCCTGACTGGATCATAAGGGTATGATTTCACTTCCTGAGGAGACGGACACTCGAAGCAGGAGA
CGGGAAGTGAAGTAAAACACGCACCTGCCTCGCAGGTCTAAAATCTGAGTGGCAGTTCAAGCACA
GTTGCCGGGGACACATCAAGAGTGTGGGGTTCGCTTTGCCAGGAGAT
Reverse primer

Supp. Fig. 1

B.

MALNVAPVRDTKWLTLEVCRQYQRGTCSRSDEECKFAHPPK

SCQVENGRVIACFDSLKGRCSRENCKYLHPPTHLKTQLEING

RNNLIQQKTAAAMLAQQMQFMFPGTPLHPVPTFPVGPTIGTN

AAISFAPYLAP<u>VTPGVGLVPTEVLPTTPVIVP</u>GSPPVTVPGSTA

Peptide Antigen used (137-157)

TQKLLRTDKLEVCREFQRGNCARGETDCRFAHPADSTMIDTN

DNTVTVCMDYIKGRCMREKCKYFHPPAHLQAKIKAAQHQAN

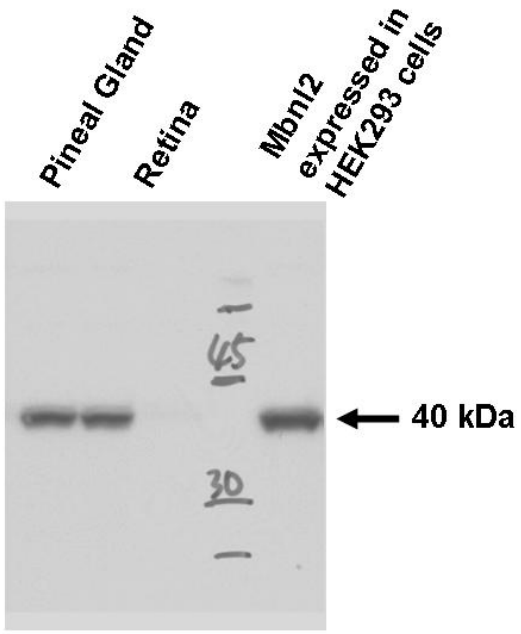
QAAVAAQAAAAAATVMAFPPGALHPLPKRQALEKSNGASTV

FNPSVLHYQQALTSAQLQQHTAFIPTDNSEIINRNGMECQESA

LRITKHCYCTYYPLCSSIELPQTAC

Supp. Fig. 1

C.


Pineal Gland
Retina
Mbnl2 expressed in HEK293 cells
45
30
40 kDa