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CUG-BP1/2 Rabbit pAb

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Catalog # AP55623

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	O95319
Reactivity	Human, Rat
Predicted	Mouse, Pig, Rabbit, Xenopus
Host	Rabbit
Clonality	Polyclonal
Calculated MW	54285
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CUG-BP1 and CUG-BP2
Epitope Specificity	421-508/508
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nucleus. Cytoplasm. Accumulates in the cytoplasm after ionizing radiation (By similarity). Colocalizes with APOBEC1 and A1CF. RNA-binding activity is detected in both nuclear and cytoplasmic compartments.
SIMILARITY	Belongs to the CELF/BRUNOL family. Contains 3 RRM (RNA recognition motif) domains.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Members of the CELF/BRUNOL protein family contain two N-terminal RNA recognition motif (RRM) domains, one C-terminal RRM domain, and a divergent segment of 160-230 aa between the second and third RRM domains. Members of this protein family regulate pre-mRNA alternative splicing and may also be involved in mRNA editing, and translation. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	10659
Other Names	CUGBP Elav-like family member 2, CELF-2, Bruno-like protein 3, CUG triplet repeat RNA-binding protein 2, CUG-BP2, CUG-BP- and ETR-3-like factor 2, ELAV-type RNA-binding protein 3, ETR-3, Neuroblastoma apoptosis-related RNA-binding protein, hNAPOR, RNA-binding protein BRUNOL-3, CELF2, BRUNOL3, CUGBP2, ETR3, NAPOR
Target/Specificity	Expressed in frontal cortex. Isoform 1 is expressed in brain and lung. Isoform 2 is expressed in heart, brain, placenta, lung, liver, kidney, skeletal muscle and

	pancreas. Isoform 4 is expressed in heart, lung, skeletal muscle, kidney and pancreas.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

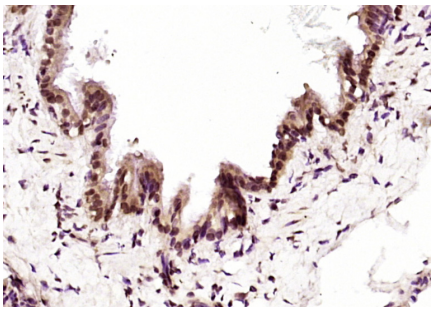
Name	CELF2
Synonyms	BRUNOL3, CUGBP2, ETR3, NAPOR
Function	RNA-binding protein implicated in the regulation of several post-transcriptional events. Involved in pre-mRNA alternative splicing, mRNA translation and stability. Mediates exon inclusion and/or exclusion in pre-mRNA that are subject to tissue-specific and developmentally regulated alternative splicing. Specifically activates exon 5 inclusion of TNNT2 in embryonic, but not adult, skeletal muscle. Activates TNNT2 exon 5 inclusion by antagonizing the repressive effect of PTB. Acts both as an activator and as a repressor of a pair of coregulated exons: promotes inclusion of the smooth muscle (SM) exon but exclusion of the non-muscle (NM) exon in actinin pre-mRNAs. Promotes inclusion of exonS 21 and exclusion of exon 5 of the NMDA receptor R1 pre-mRNA. Involved in the apoB RNA editing activity. Increases COX2 mRNA stability and inhibits COX2 mRNA translation in epithelial cells after radiation injury (By similarity). Modulates the cellular apoptosis program by regulating COX2-mediated prostaglandin E2 (PGE2) expression (By similarity). Binds to (CUG)n triplet repeats in the 3'-UTR of transcripts such as DMPK. Binds to the muscle-specific splicing enhancer (MSE) intronic sites flanking the TNNT2 alternative exon 5. Binds preferentially to UG-rich sequences, in particular UG repeat and UGUU motifs. Binds to apoB mRNA, specifically to AU-rich sequences located immediately upstream of the edited cytidine. Binds AU-rich sequences in the 3'-UTR of COX2 mRNA (By similarity). Binds to an intronic RNA element responsible for the silencing of exon 21 splicing (By similarity). Binds to (CUG)n repeats (By similarity). May be a specific regulator of miRNA biogenesis. Binds to primary microRNA pri-MIR140 and, with CELF1, negatively regulates the processing to mature miRNA (PubMed:28431233).
Cellular Location	Nucleus. Cytoplasm {ECO:0000250|UniProtKB:Q7T2T1, ECO:0000250|UniProtKB:Q9Z0H4} Note=Accumulates in the cytoplasm after ionizing radiation (By similarity). Colocalizes with APOBEC1 and A1CF. RNA-binding activity is detected in both nuclear and cytoplasmic compartments.
Tissue Location	Expressed in frontal cortex. Isoform 1 is expressed in brain and lung. Isoform 2 is expressed in heart, brain, placenta, lung, liver, kidney, skeletal muscle and pancreas. Isoform 4 is expressed in heart, lung, skeletal muscle, kidney and pancreas

Background

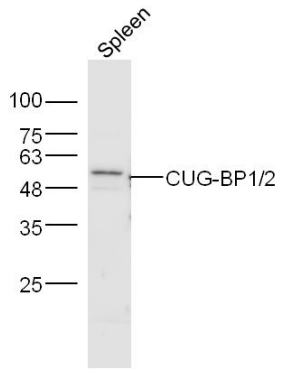
Members of the CELF/BRUNOL protein family contain two N-terminal RNA recognition motif (RRM) domains, one C-terminal RRM domain, and a divergent segment of 160-230 aa between the second and third RRM domains. Members of this protein family regulate pre-mRNA alternative splicing and may also be involved in

mRNA editing, and translation. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008]

Images



Paraformaldehyde-fixed, paraffin embedded (rat lung); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (CUG-BP1,2) Polyclonal Antibody, Unconjugated (AP55623) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Protein: spleen(mouse) lysate at 40ug;
Primary: rabbit Anti-CUG-BP1/2 (AP55623) at 1:300;
Secondary: HRP conjugated Goat-Anti-rabbit IgG(bs-0295G-HRP) at 1: 5000;
Predicted band size: 54 kD
Observed band size: 54 kD