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ZNF259/ZPR1 Rabbit pAb

Catalog # AP99939

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	O75312
Other Accession	O75312
Predicted	Rat, Pig, Human, Mouse, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	50925
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ZNF259/ZPR1
Epitope Specificity	261-360/459
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the ZPR1 family.
SUBUNIT	Component of an import snRNP complex composed of KPNB1, SNUPN, SMN1 and ZNF259. Interacts (via C-terminal region) with SMN1 (via C-terminal region); the interaction occurs after treatment with serum By similarity. Interacts with elongation factor 1-alpha EEF1A1; the interaction occurs in a epidermal growth factor (EGF)-dependent manner. Interacts (via zinc fingers) with EGFR (via C-terminal cytoplasmic kinase domain); the interaction is negatively regulated in response to epidermal growth factor (EGF) stimulation and EGFR kinase activity. May also bind to the PDGFR receptor.
DISEASE	May contribute to the severity of spinal muscular atrophy by increasing spinal motor neurons degeneration (Ref.7). Disruption phenotype Die during early embryonic development. Embryos show growth delay, failed to form normal trophectoderm and to expand the inner cell mass.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	ZPR1 is a zinc finger-containing protein that is capable of binding to the intracellular tyrosine kinase domain of the epidermal growth factor receptor. Stimulation of mammalian cells with epidermal growth factor reduces ZPR1 affinity for the EGFR and leads to an accumulation of the protein in the nucleus. The ZPR1 zinc finger is necessary for its association with the EGFR.

Additional Information

Gene ID	8882
Other Names	GKAF; ZNF259; Zfp259; RGD1562173; ZPR1_HUMAN; ZPR1; Zinc finger protein 259; ZPR1_MOUSE; ZPR1 zinc finger
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000

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	ZPR1
Synonyms	ZNF259
Function	Acts as a signaling molecule that communicates proliferative growth signals from the cytoplasm to the nucleus. It is involved in the positive regulation of cell cycle progression (PubMed:29851065). Plays a role for the localization and accumulation of the survival motor neuron protein SMN1 in sub-nuclear bodies, including gems and Cajal bodies. Induces neuron differentiation and stimulates axonal growth and formation of growth cone in spinal cord motor neurons. Plays a role in the splicing of cellular pre-mRNAs. May be involved in H(2)O(2)-induced neuronal cell death.
Cellular Location	Nucleus. Nucleus, nucleolus. Nucleus, gem. Nucleus, Cajal body. Cytoplasm, perinuclear region. Cytoplasm. Cell projection, axon. Cell projection, growth cone. Note=Colocalized with SMN1 in Gemini of coiled bodies (gems), Cajal bodies, axon and growth cones of neurons (By similarity) Localized predominantly in the cytoplasm in serum-starved cells growth arrested in G0 of the mitotic cell cycle. Localized both in the nucleus and cytoplasm at the G1 phase of the mitotic cell cycle. Accumulates in the subnuclear bodies during progression into the S phase of the mitotic cell cycle. Diffusely localized throughout the cell during mitosis. Colocalized with NPAT and SMN1 in nuclear bodies including gems (Gemini of coiled bodies) and Cajal bodies in a cell cycle- dependent manner. Translocates together with EEF1A1 from the cytoplasm to the nucleolus after treatment with mitogens. Colocalized with EGFR in the cytoplasm of quiescent cells. Translocates from the cytoplasm to the nucleus in a epidermal growth factor (EGF)-dependent manner
Tissue Location	Expressed in fibroblast; weakly expressed in fibroblast of spinal muscular atrophy (SMA) patients

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