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DDR2 (TYRO10) Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7689a

Product Information

Application	WB, E
Primary Accession	Q16832
Reactivity	Human, Mouse
Predicted	Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	96736
Antigen Region	290-320

Additional Information

Gene ID	4921
Other Names	Discoidin domain-containing receptor 2, Discoidin domain receptor 2, CD167 antigen-like family member B, Discoidin domain-containing receptor tyrosine kinase 2, Neurotrophic tyrosine kinase, receptor-related 3, Receptor protein-tyrosine kinase TKT, Tyrosine-protein kinase TYRO10, CD167b, DDR2, NTRKR3, TKT, TYRO10
Target/Specificity	This DDR2 (TYRO10) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 290-320 amino acids from human DDR2 (TYRO10).
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	DDR2 (TYRO10) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DDR2
Synonyms	NTRKR3, TKT, TYRO10

Function	Tyrosine kinase involved in the regulation of tissues remodeling (PubMed:30449416). It functions as a cell surface receptor for fibrillar collagen and regulates cell differentiation, remodeling of the extracellular matrix, cell migration and cell proliferation. Required for normal bone development. Regulates osteoblast differentiation and chondrocyte maturation via a signaling pathway that involves MAP kinases and leads to the activation of the transcription factor RUNX2. Regulates remodeling of the extracellular matrix by up- regulation of the collagenases MMP1, MMP2 and MMP13, and thereby facilitates cell migration and tumor cell invasion. Promotes fibroblast migration and proliferation, and thereby contributes to cutaneous wound healing.
Cellular Location	Cell membrane; Single-pass type I membrane protein
Tissue Location	Detected in osteocytes, osteoblastic cells in subchondral bone, bone lining cells, tibia and cartilage (at protein level). Detected at high levels in heart and lung, and at low levels in brain, placenta, liver, skeletal muscle, pancreas, and kidney

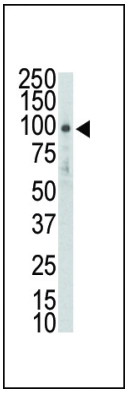
Background

Receptor tyrosine kinases (RTKs) play a key role in the communication of cells with their microenvironment. These molecules are involved in the regulation of cell growth, differentiation and metabolism. In several cases the biochemical mechanism by which RTKs transduce signals across the membrane has been shown to be ligand induced receptor oligomerization and subsequent intracellular phosphorylation. This autophosphorylation leads to phosphorylation of cytosolic targets as well as association with other molecules, which are involved in pleiotropic effects of signal transduction. RTKs have a tripartite structure with extracellular, transmembrane and cytoplasmic regions. There are several subclasses of RTKs and TYRO10 belongs to a novel subclass. The deduced amino acid sequence of TYRO10 has a unique extracellular region encompassing a factor VIII-like domain, not previously described for RTKs.

References

Vogel, W., et al., Mol. Cell 1(1):13-23 (1997).
Edelhoff, S., et al., Genomics 25(1):309-311 (1995).
Karn, T., et al., Oncogene 8(12):3433-3440 (1993).
Abedinia, M., et al., Biochem. Biophys. Res. Commun. 183(3):1159-1166 (1992).
Lapsys, N.M., et al., Cytogenet. Cell Genet. 61(4):274-275 (1992).

Images



Western blot analysis of anti-TRKA Pab (Cat. #ap7686a) in mouse brain lysate. TRKA (arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.