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Anti-DDR2 Antibody
Catalog # ABO11186

Specification

Anti-DDR2 Antibody - Product Information

Application	**WB**
Primary Accession	Q16832
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Discoidin domain-containing receptor 2(DDR2) detection. Tested with WB in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-DDR2 Antibody - Additional Information

Gene ID 4921

Other Names
Discoidin domain-containing receptor 2, Discoidin domain receptor 2, 2.7.10.1, 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

Calculated MW
96736 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization
Cell membrane ; Single- pass type I membrane protein .

Tissue Specificity
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. .

Protein Name
Discoidin domain-containing receptor 2

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human DDR2(834-855aa RDTKNRPSFQEIHLLLLQQGDE), different from the related mouse sequence by three amino acids.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Sequence Similarities
Belongs to the protein kinase superfamily. Tyr protein kinase family. Insulin receptor subfamily.

Anti-DDR2 Antibody - 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

Anti-DDR2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety

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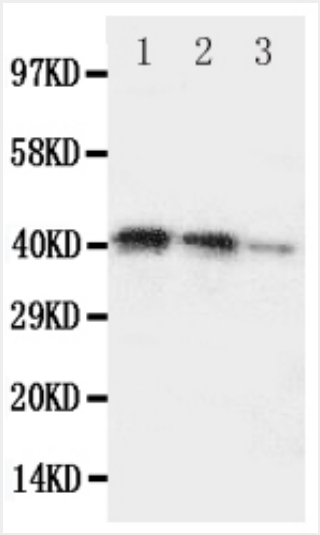
- Cell Culture

Anti-DDR2 Antibody - Images



Anti-DDR2 antibody, ABO11186, Western blottingRecombinant Protein Detection Source:E.coli derived -recombinant human DDR2, 41.2KD(162aa tag+Y656-E855)Lane 1: Recombinant Human DDR2 Protein 10ngLane 2: Recombinant Human DDR2 Protein 5ngLane 3: Recombinant Human DDR2 Protein 2.5ng

Anti-DDR2 Antibody - Background

DDR2(Discoidin domain receptor family, member 2) also known as NTRKR3 or TKT, is a human gene. Ddr2 protein was detected in most mouse tissues examined. Highest levels of phosphorylated Ddr2 were detected in lung, ovary, and skin, which did not correlate with Ddr2 protein levels. The DDR2 gene is mapped 1q23.3. Receptor tyrosine kinases(RTKs) play a key role in the communication of cells with their microenvironment.Using in situ hybridization with 1-week-old mice, Labrador et al.(2001) found that Ddr2 was expressed along chondrocyte columns in the proliferative region of the growth plate.Ddr2mRNA was also present, although dispersed, at areas of calcified cartilage in the cartilage-bone junction, as well as in the trabecular bone surface. Bargal et al.(2009) also identified a splice site mutation in the DDR2 gene, which resulted in the skipping of exon 17, in one of the Jewish families with SMED-SL originally reported by Borochowitz et al.(1993).