

DDR1 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8458b

Specification

DDR1 Antibody - Product Information

Application	WB, IHC-P,E
Primary Accession	Q08345
Reactivity	Human
Host	Mouse
Clonality	monoclonal
Isotype	IgG2b,k
Calculated MW	101128

DDR1 Antibody - Additional Information

Gene ID 780

Other Names

Epithelial discoidin domain-containing receptor 1, Epithelial discoidin domain receptor 1, CD167 antigen-like family member A, Cell adhesion kinase, Discoidin receptor tyrosine kinase, HGK2, Mammary carcinoma kinase 10, MCK-10, Protein-tyrosine kinase 3A, Protein-tyrosine kinase RTK-6, TRK

Target/Specificity

This DDR1 antibody is generated from a mouse immunized with a recombinant protein.

Dilution

WB~~1:1000

IHC-P~~1:25

Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, 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

DDR1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

DDR1 Antibody - Protein Information

Name DDR1

Synonyms CAK, EDDR1, NEP, NTRK4, PTK3A, RTK6, TRK

Function Tyrosine kinase that functions as a cell surface receptor for fibrillar collagen and regulates cell attachment to the extracellular matrix, remodeling of the extracellular matrix, cell migration, differentiation, survival and cell proliferation. Collagen binding triggers a signaling pathway that involves SRC and leads to the activation of MAP kinases. Regulates remodeling of the extracellular matrix by up-regulation of the matrix metalloproteinases MMP2, MMP7 and MMP9, and thereby facilitates cell migration and wound healing. Required for normal blastocyst implantation during pregnancy, for normal mammary gland differentiation and normal lactation. Required for normal ear morphology and normal hearing (By similarity). Promotes smooth muscle cell migration, and thereby contributes to arterial wound healing. Also plays a role in tumor cell invasion. Phosphorylates PTPN11.

Cellular Location

[Isoform 1]: Cell membrane; Single-pass type I membrane protein [Isoform 3]: Secreted.

Tissue Location

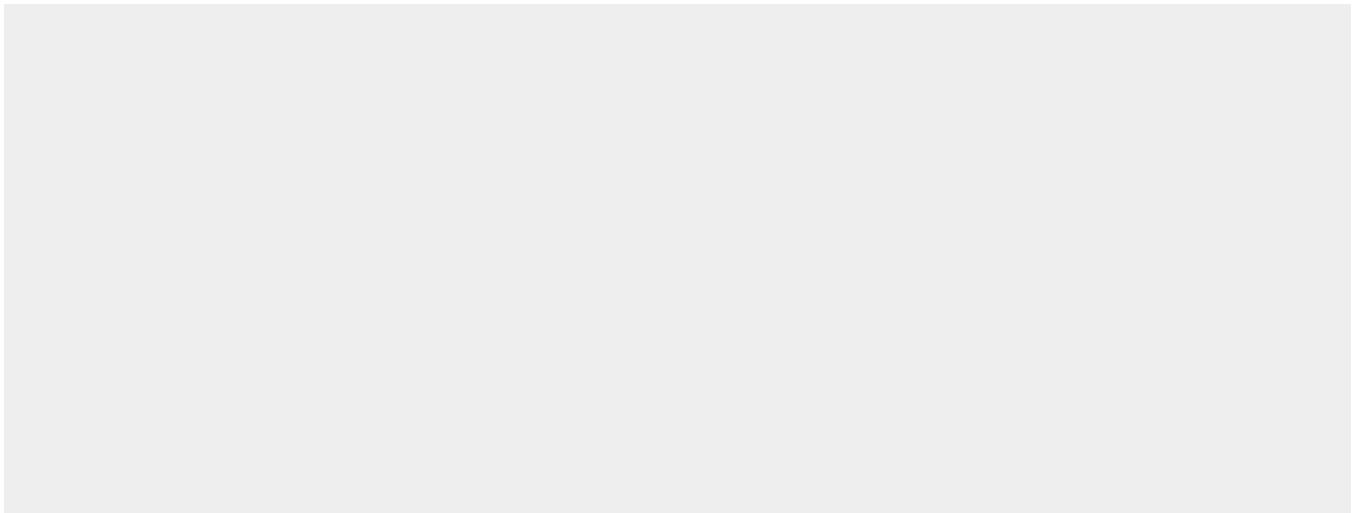
Detected in T-47D, MDA-MB-175 and HBL-100 breast carcinoma cells, A-431 epidermoid carcinoma cells, SW48 and SNU-C2B colon carcinoma cells and Hs 294T melanoma cells (at protein level) Expressed at low levels in most adult tissues and is highest in the brain, lung, placenta and kidney. Lower levels of expression are detected in melanocytes, heart, liver, skeletal muscle and pancreas Abundant in breast carcinoma cell lines. In the colonic mucosa, expressed in epithelia but not in the connective tissue of the lamina propria. In the thyroid gland, expressed in the epithelium of the thyroid follicles. In pancreas, expressed in the islets of Langerhans cells, but not in the surrounding epithelial cells of the exocrine pancreas. In kidney, expressed in the epithelia of the distal tubules Not expressed in connective tissue, endothelial cells, adipose tissue, muscle cells or cells of hematopoietic origin

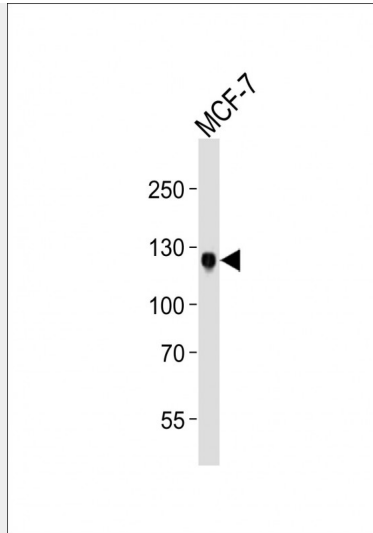
DDR1 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

DDR1 Antibody - Images





Western blot analysis of lysate from MCF-7 cell line, using DDR1 Antibody (Cat. #AM8458b). AM8458b was diluted at 1:1000. A goat anti-mouse IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20µg.



AM8458b staining DDR1 in human brain sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0.5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hour at 37°C. An undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

DDR1 Antibody - Background

Tyrosine kinase that functions as cell surface receptor for fibrillar collagen and regulates cell attachment to the extracellular matrix, remodeling of the extracellular matrix, cell migration, differentiation, survival and cell proliferation. Collagen binding triggers a signaling pathway that involves SRC and leads to the activation of MAP kinases. Regulates remodeling of the extracellular matrix by up-regulation of the matrix metalloproteinases MMP2, MMP7 and MMP9, and thereby facilitates cell migration and wound healing. Required for normal blastocyst implantation during pregnancy, for normal mammary gland differentiation and normal lactation. Required for normal ear morphology and normal hearing (By similarity). Promotes smooth muscle cell migration, and thereby contributes to arterial wound healing. Also plays a role in tumor cell invasion. Phosphorylates PTPN11.

DDR1 Antibody - References

- di Marco E.,et al.J. Biol. Chem. 268:24290-24295(1993).
Johnson J.D.,et al.Proc. Natl. Acad. Sci. U.S.A. 90:5677-5681(1993).
Laval S.,et al.Cell Growth Differ. 5:1173-1183(1994).
Perez J.L.,et al.Oncogene 9:211-219(1994).
Sakuma S.,et al.FEBS Lett. 398:165-169(1996).