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NEP / DDR1 Antibody (clone 2G4E12)

Mouse Monoclonal Antibody
Catalog # ALS13012

Specification

NEP / DDR1 Antibody (clone 2G4E12) - Product Information

Application	**IHC**
Primary Accession	Q08345
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**101kDa KDa**

NEP / DDR1 Antibody (clone 2G4E12) - Additional Information

Gene ID 780

Other Names
Epithelial discoidin domain-containing receptor 1, Epithelial discoidin domain receptor 1, 2.7.10.1, 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 E, Tyrosine kinase DDR, Tyrosine-protein kinase CAK, CD167a, DDR1, CAK, EDDR1, NEP, NTRK4, PTK3A, RTK6, TRKE

Target/Specificity
Human DDR1

Reconstitution & Storage
Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

Precautions
NEP / DDR1 Antibody (clone 2G4E12) is for research use only and not for use in diagnostic or therapeutic procedures.

NEP / DDR1 Antibody (clone 2G4E12) - 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

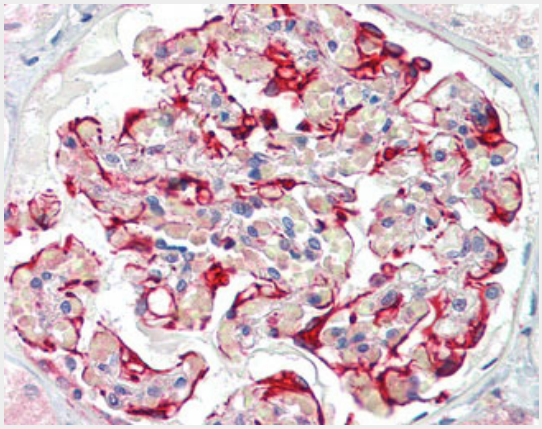
Volume
50 µl

NEP / DDR1 Antibody (clone 2G4E12) - Protocols

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

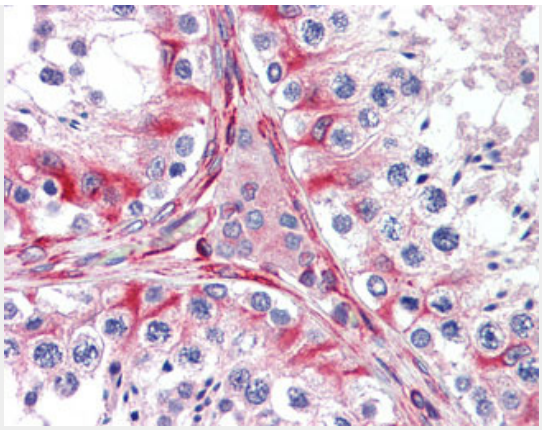
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

NEP / DDR1 Antibody (clone 2G4E12) - Images



Anti-DDR1 antibody IHC of human kidney.

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Anti-DDR1 antibody IHC of human testis.

NEP / DDR1 Antibody (clone 2G4E12) - 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.

NEP / DDR1 Antibody (clone 2G4E12) - 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).