

**Anti-MCK10 Antibody**  
Catalog # ABO11185**Specification****Anti-MCK10 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q08345</a>
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Epithelial discoidin domain-containing receptor 1(DDR1) detection. Tested with WB in Human;Rat.

**Reconstitution**

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

**Anti-MCK10 Antibody - 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

**Calculated MW**

101128 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Human, Rat<br>

**Subcellular Localization**

Isoform 1: Cell membrane; Single-pass type I membrane protein.

**Tissue Specificity**

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. .

**Protein Name**

Epithelial discoidin domain-containing receptor 1

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human MCK10(898-913aa FSQLRFLAEDALNTV), different from the related rat sequence by one amino acid, and from the related mouse sequence by two amino acids.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After reconstitution, 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-MCK10 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

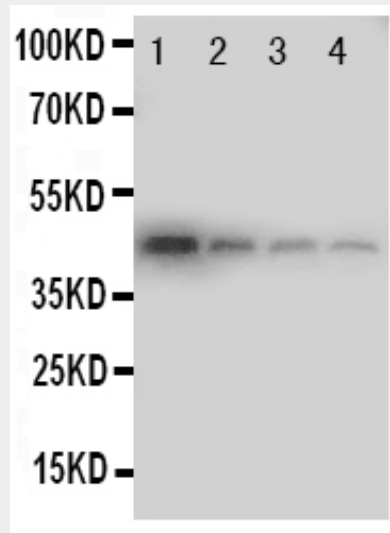
distal tubules Not expressed in connective tissue, endothelial cells, adipose tissue, muscle cells or cells of hematopoietic origin

### Anti-MCK10 Antibody - Protocols

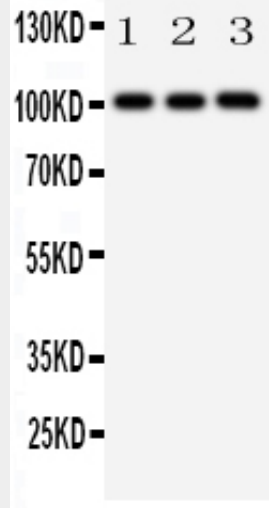
Provided below are standard protocols that you may find useful for product applications.

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

### Anti-MCK10 Antibody - Images



Anti-MCK10 antibody, ABO11185, Western blotting Recombinant Protein Detection Source: E.coli derived -recombinant human DDR1, 45.8KD(162aa tag+F669-V913) Lane 1: Recombinant Human DDR1 Protein 10ng Lane 2: Recombinant Human DDR1 Protein 5ng Lane 3: Recombinant Human DDR1 Protein 2.5ng Lane 4: Recombinant Human DDR1 Protein 1.25ng



Anti-MCK10 antibody, ABO11185, Western blotting Lane 1: A431 Cell Lysate Lane 2: A549 Cell Lysate Lane 3: HELA Cell Lysate

#### **Anti-MCK10 Antibody - Background**

DDR1(Discoidin domain receptor family, member 1) also known as NEP, EDDR1, NTRK4, TRKE, DDR, CAK or RTK6, is a human gene. The protein encoded by this gene is a RTK that is widely expressed in normal and transformed epithelial cells and is activated by various types of collagen. This protein belongs to a subfamily of tyrosine kinase receptors with a homology region to the Dictyostelium discoideum protein discoidin I in their extracellular domain. The DDR1 gene is mapped on 6p21.33. The fibrillar collagens and immobilized collagen activated DDR1 receptor phosphorylation after prolonged treatment. Bhatt et al.(2000) showed that Ddr1 was highly expressed in the cerebellum of developing and adult mouse brain, and that both Ddr1 and collagen IV were highly expressed in the pial layer of the cerebellar cortex. Cocultures of collagen I- and IV-expressing mouse pial cells with Ddr1-expressing granule cells resulted in granule cell neurite extension. Inhibition of collagen-Ddr1 signaling reduced granule cell neurite elongation.