

Epithelial discoidin domain-containing receptor 1 (DDR1) Active Protein | DDR1 active protein

Recombinant Human Epithelial discoidin domain-containing receptor 1 (DDR1), partial (Active)

CATALOG # AAA279207	HOST Mammalian Cell
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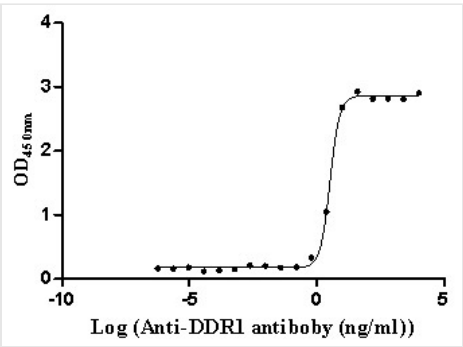
PRODUCT SYNONYMS

Epithelial discoidin domain-containing receptor 1 (DDR1); Recombinant Human Epithelial discoidin domain-containing receptor 1 (DDR1); partial (Active); 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 active protein

PRODUCT SPECIFICATIONS

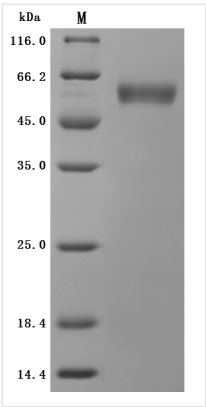
Host	Mammalian Cell
Purity/Purification	Greater than 95% as determined by SDS-PAGE.
Form/Format	Lyophilized powder Lyophilized from a 0.2 um filtered 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0
Sequence Positions	21-417aa; Partial
Sequence	DMKGFHDPK CRYALGMQDR TIPDSISAS SSWSSTAAR HSRLESSDGD GAWCPAGSVF PKEEEYLQVD LQRLHLVALV GTQGRHAGGL GKEFSRSYRL RYSRDGRRWM GWKDRWGQEV ISGNEDPEGV VLKDLGPPMV ARLVRFYPRA DRVMSVCLRV ELYGCLWRDG LLSYTAPVGQ TMYLSEAVYL NDSTYDGHTV GGLQYGGGLGQ LADGVVGLDD FRKSQELRVW PGYDYVGWSN HSFSSGYVEM EFEFDRLRAF QAMQVHCNNM HTLGARLPGG VECRFRRGPA MAWEGEPMRH NLGGNLGDPR ARAVSPLGG RVARFLQCRF LFAGPWLLFS EISFISDVVN NSSPALGGTF PPAPWWPPGP PPTNFSSLEL EPRGQQPVAK AEGSPTA\$
Species	Homo sapiens (Human)
Tag	C-terminal 10xHis-tagged
Endotoxin	Less than 1.0 EU/ug as determined by LAL method.
Research Area	Cancer
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized Human DDR1 at 2 ug/mL can bind Anti-DDR1 recombinant antibody, the EC50 is 2.824-3.810 ng/mL.
Preparation and Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20 degree C/-80 degree C. The shelf life of lyophilized form is 12 months at -20 degree C/-80 degree C. Repeated freezing and thawing is not recommended. Store working aliquots at 4 degree C for up to one week. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20 degree C/-80 degree C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

IMAGES



Bioactivity

Measured by its binding ability in a functional ELISA. Immobilized Human DDR1 at 2 ?g/ml can bind Anti-DDR1 recombinant antibody, the EC50 is 2.824-3.810 ng/mL.



SDS-PAGE

Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

ADDITIONAL INFORMATION

Related Product Information for DDR1 active protein	"Collagen binding specificity of the discoidin domain receptors: binding sites on collagens II and III and molecular determinants for collagen IV recognition by DDR1."Xu H., Raynal N., Stathopoulos S., Myllyharju J., Farndale R.W., Leitingner B.Matrix Biol. 30:16-26(2011)
Product Categories/Family for DDR1 active protein	Active Protein & In Stock Protein

NCBI AND UNIPROT INFORMATION

NCBI GI #	321400059
NCBI GeneID	780
NCBI Accession #	NP_001189450.1
NCBI GenBank Nucleotide #	NM_001202521.1
UniProt Accession #	Q08345; Q14196; Q16562; Q2L6H3; Q4LE50; Q5ST11; Q5ST12; Q6NSK4; Q9UD35; B5A975; B5A976; B7Z2K0
Molecular Weight	101,128 Da
NCBI Official Full Name	epithelial discoidin domain-containing receptor 1 isoform 4
NCBI Official Synonym Full Names	discoidin domain receptor tyrosine kinase 1
NCBI Official Symbol	DDR1
NCBI Official Synonym Symbols	CAK; DDR; NEP; HGK2; PTK3; RTK6; TRKE; CD167; EDDR1; MCK10; NTRK4; PTK3A
NCBI Protein Information	epithelial discoidin domain-containing receptor 1; tyrosine kinase DDR; cell adhesion kinase; mammary carcinoma kinase 10; tyrosine-protein kinase CAK; protein-tyrosine kinase RTK-6; neuroepithelial tyrosine kinase; PTK3A protein tyrosine kinase 3A; CD167
UniProt Protein Name	Epithelial discoidin domain-containing receptor 1
UniProt Gene Name	DDR1
UniProt Synonym Gene Names	CAK; EDDR1; NEP; NTRK4; PTK3A; RTK6; TRKE; Epithelial discoidin domain receptor 1; MCK-10
UniProt Entry Name	DDR1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

