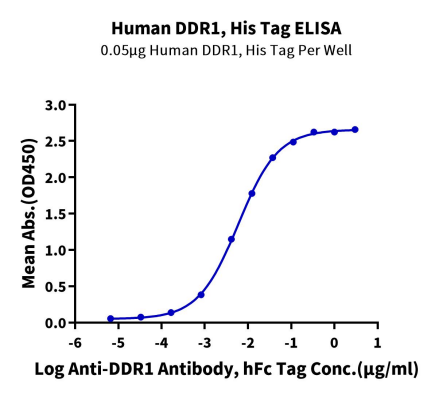
Bioactive HuPro®

DDR1 (Human) Recombinant Protein

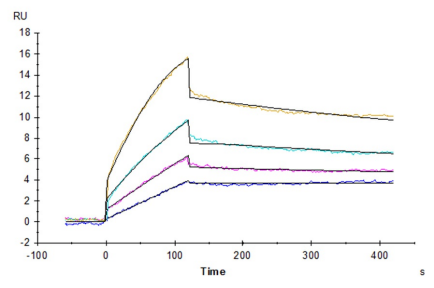
Catalog # P9802 Size 100 ug

Applications



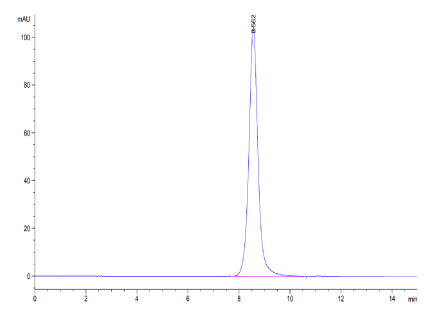
Enzyme-linked Immunoabsorbent Assay

Immobilized Human DDR1, His Tag at 0.5 ug/mL (100 uL/well) on the plate. Dose response curve for Anti-DDR1 Antibody, hFc Tag with the EC50 of 5.9 ng/mL determined by ELISA (QC Test).



Surface Plasmon Resonance

Human DDR1, His Tag captured on CM5 Chip via Anti-His Antibody can bind Native Human Collagen I protein with an affinity constant of 0.806 nM as determined in SPR assay (Biacore T200).



SEC-HPLC

The purity of Human DDR1 is greater than 95% as determined by SEC-HPLC.

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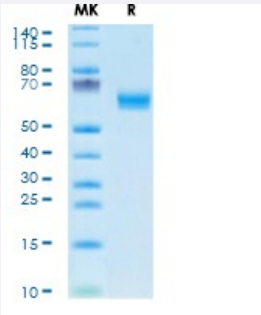

Tris-Bis PAGE

Human DDR1 on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

Specification

Product Description	Human DDR1(Q08345-1, Asp21-Ala417) partial recombinant protein with His tag at C-terminus expr essed in HEK293 cells.
Sequence	Asp21-Ala417
Host	Human
Theoretical MW (kDa)	45.1
Form	Lyophilized
Preparation Method	Mammalian cell (HEK293) expression system
Purity	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin Level	< 1 EU per 1 ug of protein (determined by LAL method)
Activity	The EC_{50} was 5.9 ng/mL, messured by ELISA at 0.5 ug/mL. (QC Test). The affinity constant of 0.806 nM as determined in SPR assay (Biacore T200)
Quality Control Testing	SEC-HPLC and Tris-Bis PAGE SEC-HPLC The purity of Human DDR1 is greater than 95% as determined by SEC-HPLC. Tris-Bis PAGE Human DDR1 on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.
Recommend Usage	Biological Activity ELISA SDS-PAGE SPR The optimal working dilution should be determined by the end user.
Storage Buffer	Lyophilized from sterile distilled Water is > 100 ug/mL
Storage Instruction	Store at 2°C to 8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C. Aliquot to avoid repeated freezing and thawing.
Note	Result of bioactivity analysis

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Applications

- Functional Study
- Enzyme-linked Immunoabsorbent Assay

  Immobilized Human DDR1, His Tag at 0.5 ug/mL (100 uL/well) on the plate. Dose response curve for Anti-DDR1 Antibody, hFc Tag with the EC50 of 5.9 ng/mL determined by ELISA (QC Test).
- SDS-PAGE
- Surface Plasmon Resonance

  Human DDR1, His Tag captured on CM5 Chip via Anti-His Antibody can bind Native Human Collagen I protein with an affinity constant of 0.806 nM as determined in SPR assay (Biacore T200).

Gene Info — DDR1

Entrez GeneID	780
Protein Accession#	Q08345-1
Gene Name	DDR1
Gene Alias	CAK, CD167, DDR, EDDR1, MCK10, NEP, NTRK4, PTK3, PTK3A, RTK6, TRKE
Gene Description	discoidin domain receptor tyrosine kinase 1
Omim ID	600408
Gene Ontology	Hyperlink
Gene Summary	Receptor tyrosine kinases (RTKs) play a key role in the communication of cells with their microenvironment. These molecules are involved in the regulation of cell growth, differentiation and metabolism. 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. Its autophosphorylation is achieved by all collagens so far tested (type I to type VI). In situ studies and Northern-blot analysis showed that expression of this encoded protein is restricted to epithelial cells, particularly in the kidney, lung, gastrointestinal tract, and brain. In addition, this protein is significantly over-expressed in several human tumors from breast, ovarian, esophageal, and pediatric brain. This gene is located on chromosome 6p21.3 in proximity to several HLA class I genes. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq

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Other Designations	OTTHUMP00000029343|OTTHUMP00000029344|OTTHUMP00000029345|OTTHUMP00000029346|OTTHUMP00000029347|PTK3A protein tyrosine kinase 3A|cell adhesion kinase|discoidin domain receptor DDR1d|discoidin domain receptor family, member 1|discoidin receptor tyrosine kin

Disease

- Abortion
- Arthritis
- Disease Progression
- Disease Susceptibility
- Genetic Predisposition to Disease
- Glomerulonephritis
- Leukemia
- Lupus Erythematosus
- Schizophrenia
- Vitiligo

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