

DDR2 Protein, Rat (HEK293, His)

Cat. No.:	HY-P75297
Synonyms:	Discoidin domain-containing receptor 2; CD167b; Ddr2; Ntrkr3; Tkt; Tyro10
Species:	Rat
Source:	HEK293
Accession:	B1WC09 (Q24-R399)
Gene ID:	685781
Molecular Weight:	Approximately 50-70 kDa due to the glycosylation

PROPERTIES

AA Sequence	<p> QVNPAICRYP LGMSGGHIIPD EDITASSQWS ESTAAKYGRL DSEEGDGAWC PEIPVQPDDL KEFLQIDLRT LHFITLVGTQ GRHAGGHGIE FAPMYKINYS RDGNRWISWR NRHGKQVLDG NSNPYDVFLK DLEPPIVARF VRLIPVTDHS MNVCMRVELY GCVWLDGLVS YNAPAGQQFV LPGGSI IYLN DSVYDGA VG Y SMTEGLGQLT DGVSGLDDFT QTHEYHVWPG YDYVGWRNES ATNGFIEIMF EFDRVRNFTT MKVHCNNMFA KGVKIFKEVQ CYFRSETSEW EPTAVYFPLV LDDVNPSARF VTVPLHHRMA SAIKCQYHFA DTWMMFSEIT FQSDAAMYNN SGALPTSPMA PTTFDPLMKV DDSNTR </p>
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized Collagen I at 10 µg/mL can bind Rat DDR2 with an apparent KD is 7.841 nM.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

DDR2 protein, a tyrosine kinase integral to the regulation of tissue remodeling, functions as a cell surface receptor for fibrillar collagen, exerting control over cell differentiation, extracellular matrix remodeling, cell migration, and proliferation. Crucial for normal bone development, DDR2 plays a central role in osteoblast differentiation and chondrocyte maturation through a signaling pathway involving MAP kinases, culminating in the activation of the transcription factor RUNX2. Additionally, DDR2 regulates extracellular matrix remodeling by up-regulating collagenases MMP1, MMP2, and MMP13, thereby facilitating cell migration and tumor cell invasion. Its involvement extends to promoting fibroblast migration and proliferation, contributing to the dynamic process of cutaneous wound healing.

Caution: Product has not been fully validated for medical applications. For research use only.

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