# Recombinant Human DDR2 Kinase/CD167b Protein (aa 422-855, His &GST Tag)

**Catalog Number: PKSH030420**

**Note:** *Centrifuge before opening to ensure complete recovery of vial contents.*

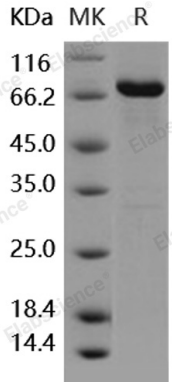
## Description

| | |
|---|---|
| **Species** | Human |
| **Source** | Baculovirus-Insect Cells-derived Human DDR2 Kinase/CD167b protein Arg422-Glu855, with an N-terminal His & GST |
| **Calculated MW** | 77.1 kDa |
| **Observed MW** | 77 kDa |
| **Accession** | Q16832 |
| **Bio-activity** | The specific activity was determined to be 8 nmol/min/mg using synthetic AXLtide peptide(CKKSRGDYMTMQIG) as substrate. |

## Properties

| | |
|---|---|
| **Purity** | > 95 % as determined by reducing SDS-PAGE. |
| **Concentration** | Subject to label value. |
| **Endotoxin** | < 1.0 EU per μg of the protein as determined by the LAL method. |
| **Storage** | Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles. |
| **Shipping** | This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < - 20°C. |
| **Formulation** | Supplied as sterile solution of 20mM Tris, 500mM NaCl, pH 7.4, 10% glycerol |

## Data




> 95 % as determined by reducing SDS-PAGE.

## Background

Discoidin domain receptor 2 (DDR2) or CD167b (cluster of differentiation 167b) is a kind of protein tyrosine kinases associated with cell proliferation and tumor metastasis, and collagen, identified as a ligand for DDR2, up-regulates matrix metallloproteinase 1 (MMP-1) and MMP-2 expression in cellular matrix. DDR2/CD167b was found to recognise the triple-helical region of collagen X as well as the NC1 domain. Binding to the collagenous region was dependent on the triple-helical conformation. DDR2/CD167b autophosphorylation was induced by the collagen X triple-helical region but not the NC1 domain, indicating that the triple-helical region of collagen X contains a specific DDR2 binding site that is capable of receptor activation. DDR2/CD167b is induced during stellate cell activation and implicate the phosphorylated receptor as a mediator of MMP-2 release and growth stimulation in response to type I collagen. Moreover, type I collagen-dependent upregulation of DDR2/CD167b expression establishes a positive feedback loop in activated stellate cells, leading to further proliferation and enhanced invasive activity.

**For Research Use Only**