# Recombinant Human MYDGF Protein (His Tag)

**Catalog Number: PKSH032635**

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

## Description

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|---|---|
| **Species** | Human |
| **Source** | E.coli-derived Human MYDGF protein Ser33-Leu173, with an N-terminal His |
| **Calculated MW** | 18.0 kDa |
| **Observed MW** | 17 kDa |
| **Accession** | Q969H8 |
| **Bio-activity** | Not validated for activity |

## Properties

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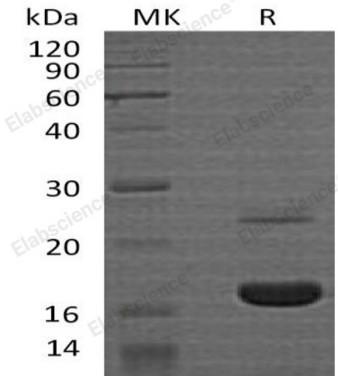
|---|---|
| **Purity** | > 95 % as determined by reducing SDS-PAGE. |
| **Endotoxin** | < 1.0 EU per μg of the protein as determined by the LAL method. |
| **Storage** | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months. |
| **Shipping** | This product is provided as lyophilized powder which is shipped with ice packs. |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution of 4mM HCl.<br>Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed manual. |
| **Reconstitution** | Please refer to the printed manual for detailed information. |

## Data




> 95 % as determined by reducing SDS-PAGE.

## Background

Myeloid-derived growth factor (MYDGF) is a secreted protein which belongs to the UPF0556 family. MYDGF was strongly expressed in spleen, prostate and lung, and weakly expressed in the left ventricle and liver. Bone marrow-derived monocyte and paracrine-acting protein promotes cardiac myocyte survival and adaptive angiogenesis for cardiac protection and/or repair after myocardial infarction (MI). MYDGF stimulates endothelial cell proliferation through a MAPK1/3-, STAT3- and CCND1-mediated signaling pathway. It inhibits cardiac myocyte apoptosis in a PI3K/AKT-dependent signaling pathway. MYDGF is involved in endothelial cell proliferation and angiogenesis. It may serve as a prototypical example for the development of protein-based therapies for ischemic tissue repair.

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