



# Recombinant Protein Technical Manual

## Recombinant Human MYDGF Protein (His Tag)

RPES2289

### Product Data:

**Product SKU:** RPES2289

**Size:** 10µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** Q969H8

### Protein Information:

**Molecular Mass:** 18.0 kDa

**AP Molecular Mass:** 17&25 kDa

**Tag:** N-6His

**Bio-activity:**

**Purity:** > 90 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C 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 20mM PB,150mM NaCl,pH7.4.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** UPF0556 protein C19orf10; stromal cell-derived growth factor SF20;C19orf10;Myeloid-derived growth factor;MYDGF

## Immunogen Information:

**Sequence:** Ser33-Leu173

## 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.