

Catalogue # Aliquot Size

\$14-30G-50 50 μg \$14-30G-200 200 μg

# **SMAD5 Protein**

Full-length recombinant protein expressed in E. coli cells

## **Catalog # \$14-30G**

Lot # E203-3

#### **Product Description**

Recombinant full-length human SMAD5 was expressed in E. coli cells using an N-terminal GST tag. The gene accession number is NM 005903.

#### **Gene Aliases**

Dwfc, JV5-1, MADH5, DKFZp781C1895, DKFZp781O1323

#### **Formulation**

Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.

### **Storage and Stability**

Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

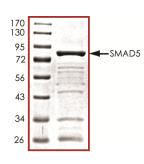
# **Scientific Background**

SMAD5 is a member of the SMAD family and mediates signaling by the transforming growth factor-beta (TGF $\beta$ ) superfamily and related ligands (1). SMAD5 plays a critical role in the signaling pathway by which TGF $\beta$  inhibits the proliferation of human hematopoietic progenitor cells. SMAD5 is up-regulated in gastric epithelial cells during the infection of the pathogen Helicobacter pylori and it mediates apoptosis of gastric epithelial cells induced by H. pylori infection (2). In mature human B cells, bone morphogenetic protein 6 (BMP-6) inhibits cell growth and rapidly induces phosphorylation of SMADs 5 and 8.

#### References

- Heldin, C.H. et al: TGF-beta signalling from cell membrane to nucleus through SMAD proteins". Nature, 1997, 390 (6659): 465–71.
- Nagasko, T. et al: Up-regulated Smad5 mediates apoptosis of gastric epithelial cells induced by Helicobacter pylori infection. J Biol Chem. 2003 Feb 14;278(7):4821-5.

## **Purity**



The purity of SMAD5 was determined to be >80% by densitometry. Approx. MW 82kDa.

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Catalog Number Specific Lot Number

> Purity Concentration Stability Storage & Shipping

\$14-30G E203-3 >80% 0.2 µg/µl

0.2 µg/µi 1yr at -70°C from date of shipment Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on dry ice.