

## Recombinant SMAD2 protein

**Catalog No:** 82070, 82670

**Expressed In:** Baculovirus

**Quantity:** 20, 1000 µg

**Source:** Human

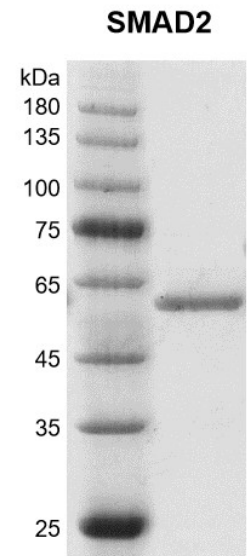
**Buffer Contents:** Recombinant SMAD2 protein is supplied in 25 mM HEPES pH 7.5, 300 mM NaCl, 20% glycerol, 0.04% Triton X-100, 0.5 mM TCEP.

**Background:** The **transforming growth factor-beta (TGF-β)** superfamily signaling controls a wide variety of biological processes from development to pathogenesis primarily through intracellular Smad proteins. Smads are structurally and functionally grouped into three subfamilies: five receptor-activated Smads (R-Smads), one common Smad and two inhibitory Smads. Of R-Smads, Smad2 and Smad3 (Smad2/3 thereafter for simplicity) transduce activin and **TGF-β** signals, whereas Smad1, Smad5 and Smad8 transduce signals from the BMP/GDF (Bone Morphogenetic Proteins/ Growth Differentiation Factor) family. SMAD2 is key intracellular signal transducers for **TGF-β** signaling and their transcriptional activities are controlled through reversible phosphorylation and nucleocytoplasmic shuttling.

**Protein Details:** Recombinant SMAD2 protein was expressed in a baculovirus expression system as the full length protein (accession number NP\_005892.1) with an N-terminal FLAG tag. The molecular weight of SMAD1 is 53.58 kDa.

**Application Notes:** This product was manufactured as described in Protein Details. Where possible, Active Motif has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data for this product is shown.

**Storage and Guarantee:** Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.



**Recombinant SMAD2 protein**  
10% SDS-PAGE Coomassie  
staining  
MW: 53.58 kDa  
Purity: >95%