

## AbFlex® SMAD1 antibody (rAb)

**Catalog Nos:** 91475, 91476

**Application(s):** IF, IP, WB

**Reactivity:** Human, Mouse, Rat

**Quantities:** 100 µg, 10 µg

**Purification:** Protein A Chromatography

**Host:** Rabbit

**Isotype:** IgG

**Molecular Weight:** 52.3 kDa

### Background:

AbFlex® antibodies are recombinant antibodies (rAbs) that have been generated using defined DNA sequences to produce highly specific, reproducible antibodies. Each AbFlex® antibody contains a 6xHis Tag, a Biotinylation Tag for enzymatic biotin conjugation using the biotin ligase, BirA, and a sortase recognition motif (LPXTG) to attach a variety of labels directly to the antibody including fluorophores, enzymatic substrates (HRP, AP), peptides, drugs as well as solid supports.

AbFlex® **SMAD1** antibody was expressed as full-length IgG with rabbit immunoglobulin heavy and light chains in mammalian HEK293 cells.

**SMAD1 (SMAD family member 1)**, also known as BSP1; JV41; BSP-1; JV4-1; MADH1; MADR1) belongs to the **SMAD**, a family of proteins similar to the gene products of the *Drosophila* gene 'mothers against decapentaplegic' (Mad) and the *C. elegans* gene Sma. SMAD1 is a signal transducer and transcriptional modulator that mediates multiple signaling pathways. This protein mediates the signals of the bone morphogenetic proteins (BMPs), which are involved in a range of biological activities including cell growth, apoptosis, morphogenesis, development and immune responses.

**Immunogen:** This SMAD1 antibody was raised against a recombinant protein corresponding to human SMAD1.

**Buffer:** Purified IgG in 140 mM Hepes, pH 7.5, 70 mM NaCl, 32 mM NaOAc, 40% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.

### Application Notes:

Applications Validated by Active Motif:

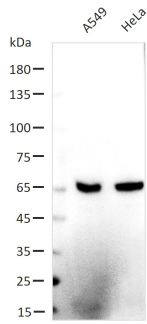
WB: 0.5 - 2 µg/mL

IP: 2 µg per IP

IF: 2 µg/mL

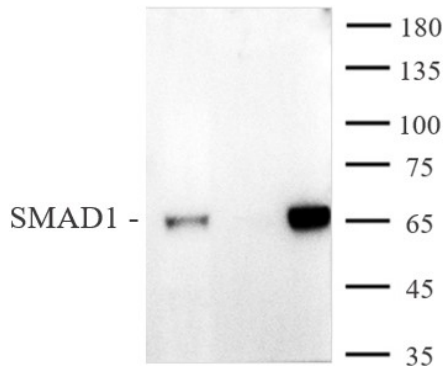
**Storage and Guarantee:** Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.



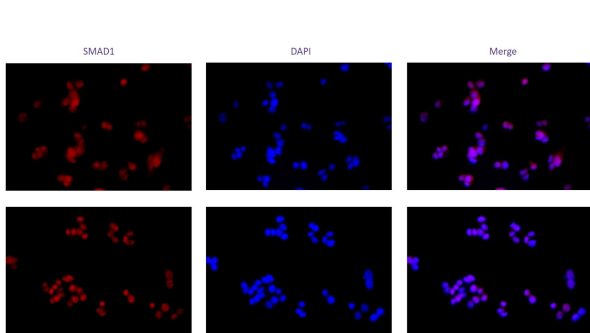
**AbFlex® SMAD1 rAb antibody tested by Western blot.**

A549 and HeLa whole cell extract (40 µg) was probed with AbFlex® SMAD1 antibody at 0.5 µg/mL.



**AbFlex® SMAD1 rAb antibody tested by immunoprecipitation.**

2 µg of antibody was used to immunoprecipitate SMAD1 from 1 mg of A431 whole cell extract, 40% IP product (Lane 3) and 40 µg of Input proteins (Lane 1) were then run on SDS-PAGE and probed with the same antibody at 0.5 µg/ml. Tween-20 at 0.1% was added to blocking buffers to perform Western blot and reduce background. 2 µg of rabbit IgG was used as negative control for IP (Lane 2).



**AbFlex® SMAD1 rAb antibody tested by immunofluorescence.**

SMAD1 was detected in BMP2 treated HEPG2 cells (treated with 50 ng/mL BMP2 for 1 hour) using AbFlex® SMAD1 antibody at 2 µg/mL. Followed by Multi-rAb CoraLite® Plus 594-Goat Anti-Rabbit Recombinant Secondary Antibody (H+L). DAPI at 594 nm.