

Catalog No. **BMR00479**

Mouse monoclonal antibody **Anti-Human SMAD1**

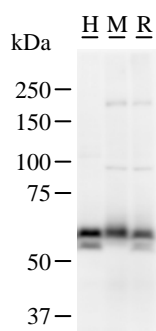
■ Background

The protein encoded by this gene 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. SMAD proteins are signal transducers and transcriptional modulators that mediate 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. In response to BMP ligands, this protein can be phosphorylated and activated by the BMP receptor kinase. The phosphorylated form of this protein forms a complex with SMAD4, which is important for its function in the transcription regulation. This protein is a target for SMAD-specific E3 ubiquitin ligases, such as SMURF1 and SMURF2, and undergoes ubiquitination and proteasome-mediated degradation. Alternatively spliced transcript variants encoding the same protein have been observed. [NCBI Entrez Gene Summary]

■ Recommended condition

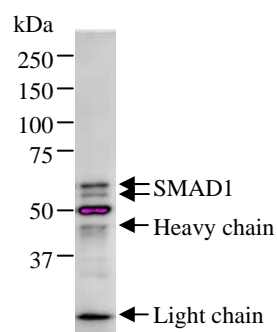
WB: 0.2-2 µg/ml IP: 100-500 µg/sample FC: 0.5-2 µg/sample ICC: 2-100 µg/ml

■ Application

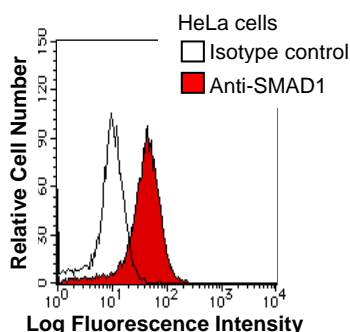


Detection of SMAD1 by Western blot.
Samples: Whole cell lysate from human HEK293 (H, 25 µg), mouse NIH3T3 (M, 25 µg) and rat F2408 (R, 25 µg) cells. [Lot No. 913C1b-1]

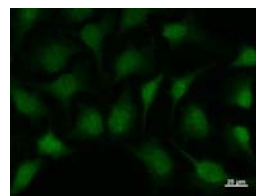
Predicted molecular weight: 52 kDa



Immunoprecipitation: RIPA lysate of HeLa cells was incubated with anti-SMAD1 mAb. [Lot No. 913C1b-1]



HeLa cells were fixed in 2% paraformaldehyde/PBS and then permeabilized in 90% methanol. Cells were stained with anti-SMAD1 mAb (shaded) or isotype control (unshaded) followed by Alexa Fluor® 488-conjugated goat anti-mouse IgG. [Lot No. 913C1b-1]



Immunostaining analysis in HeLa cells. HeLa cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100 in PBS. The cells were immunostained with anti-SMAD1 mAb. [Lot No. 913C1b-1]