

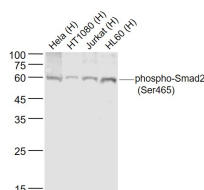
bs-2224R**[Primary Antibody]****phospho-Smad2 (Ser465) Rabbit pAb****Bioss**
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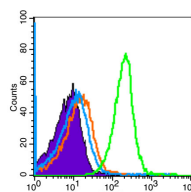
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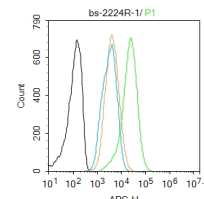
400-901-9800

— DATASHEET —**Host:** Rabbit**Isotype:** IgG**Clonality:** Polyclonal**GeneID:** 4087**SWISS:** Q15796**Target:** Smad2 (Ser465)**Immunogen:** KLH conjugated Synthesised phosphopeptide derived from human Smad2 around the phosphorylation site of Ser465: CS(p-S)MS.**Purification:** affinity purified by Protein A**Concentration:** 1mg/ml**Storage:** 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.**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 signal of the transforming growth factor (TGF)-beta, and thus regulates multiple cellular processes, such as cell proliferation, apoptosis, and differentiation. This protein is recruited to the TGF-beta receptors through its interaction with the SMAD anchor for receptor activation (SARA) protein. In response to TGF-beta signal, this protein is phosphorylated by the TGF-beta receptors. The phosphorylation induces the dissociation of this protein with SARA and the association with the family member SMAD4. The association with SMAD4 is important for the translocation of this protein into the nucleus, where it binds to target promoters and forms a transcription repressor complex with other cofactors. This protein can also be phosphorylated by activin type 1 receptor kinase, and mediates the signal from the activin. Alternatively spliced transcript variants have been observed for this gene. [provided by RefSeq, May 2012]**Applications:** WB (1:500-5000)**Flow-Cyt** (1µg/Test)**Reactivity:** Human, Mouse
(predicted: Rat, Cow, Chicken, Dog, Horse)**Predicted MW.:** 58 kDa**Subcellular Location:** Cytoplasm ,Nucleus**— VALIDATION IMAGES —**

Sample: Lane 1: HeLa (Human) Cell Lysate at 30 ug
Lane 2: HT1080 (Human) Cell Lysate at 30 ug
Lane 3: Jurkat (Human) Cell Lysate at 30 ug
Lane 4: HL60 (Human) Cell Lysate at 30 ug
Primary: Anti-phospho-Smad2 (Ser465) (bs-2224R) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 60 kD
Observed band size: 60 kD



Blank control (Black line): Raji (Black). Primary Antibody (green line): Rabbit Anti-phospho-Smad2 (Ser465) antibody (bs-2224R) Dilution: 3µg / 10⁶ cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE Dilution: 1µg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at room temperature. The cells were then incubated in 5%BSA goat serum to block non-specific protein-protein interactions for 15 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of



Blank control: HeLa. Primary Antibody (green line): Rabbit Anti-phospho-Smad2 (Ser465) antibody (bs-2224R) Dilution: 1µg / 10⁶ cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody : Goat anti-rabbit IgG-AF647 Dilution: 1µg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at -20°C. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

— SELECTED CITATIONS —

- **[IF=9.988]** Hao Ni. et al. Long term toxicities following developmental exposure to perfluorooctanoic acid: Roles of peroxisome proliferation activated receptor alpha. ENVIRON POLLUT. 2023 Jan;317:120722 WB ;Chicken. 36436667
- **[IF=10]** Liwen Feng. et al. Cancer-associated Fibroblast-like Cells Promote Osteosarcoma Metastasis by Upregulation of Phosphoserine Aminotransferase 1 and Activation of the mTOR/S6K Pathway. INT J BIOL SCI. 2025 Jun;21(9):4153 WB ;Human. 40612679
- **[IF=5.895]** Sheng-Zhong Han. et al. miR-455-3p Is Negatively Regulated by Myostatin in Skeletal Muscle and Promotes Myoblast Differentiation. J AGR FOOD CHEM. 2022;70(33):10121–10133 WB ;Pig, Mouse. 35960196
- **[IF=4.7]** Ziyi Wang. et al. Macrophages Atp6v0d2 regulates XBP1-mediated cholesterol metabolism to suppress metabolic dysfunction-associated steatohepatitis progression. INT IMMUNOPHARMACOL. 2025 Aug;161:115088 WB ;Mouse. 40526981
- **[IF=4.784]** Zheng Wu. et al. FOXD3 suppresses epithelial–mesenchymal transition through direct transcriptional promotion of SMAD7 in esophageal squamous cell carcinoma. 2021 Sep 22 WB ;human. 34551139