# Recombinant Phospho-SMAD2 (Ser465, 467) Monoclonal Antibody

**catalog number: AN300146L**

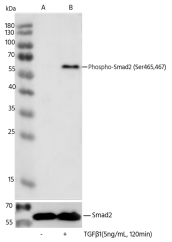
**Note:** *Centrifuge before opening to ensure complete recovery of vial contents.*

## Description

| | |
|---|---|
| **Reactivity** | Human |
| **Immunogen** | A synthetic peptide corresponding to the residues around (Ser465, 467) of Human Phospho-SMAD2 |
| **Host** | Rabbit |
| **Isotype** | IgG |
| **Clone** | 4B12 |
| **Purification** | Protein A |
| **Buffer** | 10 mM sodium HEPES, 150 mM NaCl, 100 μg/mL protein protectant, 50% glycerol, pH 7.5 |

| Applications | Recommended Dilution |
|---|---|
| **WB** | 1:500-1:2000 |

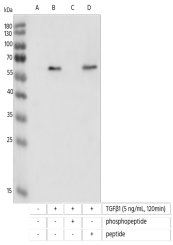
## Data




Western blot analysis of extracts from serum-starved Hela, untreated(line A) or treated with TGF beta 1 (5 ng/mL, 120min; +)(line B), using Phospho-SMAD2 (Ser465, 467) Monoclonal Antibody at 1:1000 dilution (upper) or Anti-SMAD2 Monoclonal Antibody at 1:100000 dilution (lower).

**Observed-MW:60 kDa**

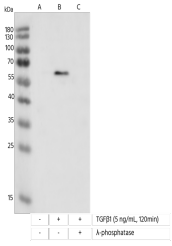
**Calculated-MW:52 kDa**




Western blot analysis of extracts from serum-starved Hela, untreated (line A); treated with TGFβ1 (5 ng/mL, 120 min), without peptide (line B) or antigen-specific phosphopeptide (line C) or antigen-specific peptide (line D) using Phospho-SMAD2 (Ser465, 467) Monoclonal Antibody at 1:1000 dilution.

**Observed-MW:60 kDa**

**Calculated-MW:52 kDa**



Western blot analysis of extracts from serum-starved Hela, untreated (line A); treated with TGFβ1 (5 ng/mL, 120min; +); treated with TGFβ1 and λ-phosphatase (line C) using Phospho-SMAD2 (Ser465, 467) Monoclonal Antibody at 1:1000 dilution.

**Observed-MW:60 kDa**

**Calculated-MW:52 kDa**

## Preparation & Storage

| | |
|---|---|
| **Storage** | This antibody can be stored at 2℃-8℃ for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20℃ to -80℃. Preservative-Free. Avoid repeated freeze-thaw cycles. |
| **Shipping** | Ice bag |

## 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 2 receptor kinase, and mediates the signal from the activin. Alternatively spliced transcript variants have been observed for this gene.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