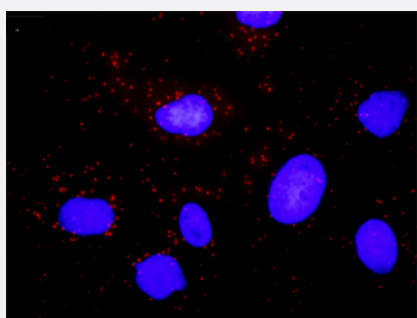


# SMAD2(phospho S467) & SMAD2 Protein Phosphorylation Antibody Pair

Catalog # DP0240      Size 1 Set

## Applications



Representative image of Proximity Ligation Assay of protein phosphorylation. HeLa cells were stained with dual recognition antibody pair set, rabbit polyclonal antibody 1:1200 and mouse monoclonal antibody 1:50. Each red dot represents one single phosphorylated protein. The images were analyzed using an optimized freeware (BlobFinder) download from The Centre for Image Analysis at Uppsala University.

## Specification

### Product Description

This protein phosphorylation antibody pair set comes with two antibodies, one against the SMAD2 protein, and the other against the specific S467 phosphorylated site of SMAD2 for use in [in situ Proximity Ligation Assay](#). [See Publication Reference below](#).

### Reactivity

Human

### Quality Control Testing

Dual recognition immunofluorescence result.  
Representative image of Proximity Ligation Assay of protein phosphorylation. HeLa cells were stained with dual recognition antibody pair set, rabbit polyclonal antibody 1:1200 and mouse monoclonal antibody 1:50. Each red dot represents one single phosphorylated protein. The images were analyzed using an optimized freeware (BlobFinder) download from The Centre for Image Analysis at Uppsala University.

### Supplied Product

Antibody pair set content:  
1. Phospho-SMAD2 S467 rabbit polyclonal antibody (20 ul)  
In PBS (without Mg<sup>2+</sup> and Ca<sup>2+</sup>), 150 mM NaCl, pH 7.4 (0.02% sodium azide, 50% glycerol)  
2. SMAD2 mouse monoclonal antibody (40 ug)  
In 1x PBS, pH 7.2  
\*Reagents are sufficient for at least 30-50 assays using recommended protocols.

### Storage Instruction

Store reagents of the antibody pair set at -20°C or lower. Please aliquot to avoid repeated freeze thaw cycle. Reagents should be returned to -20°C storage immediately after use.

## Applications

- *In situ* Proximity Ligation Assay (Cell)

## Gene Info — SMAD2

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Entrez GeneID      | <a href="#">4087</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Gene Name          | SMAD2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Gene Alias         | JV18, JV18-1, MADH2, MADR2, MGC22139, MGC34440, hMAD-2, hSMAD2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Gene Description   | SMAD family member 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Omim ID            | <a href="#">601366</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Gene Ontology      | <a href="#">Hyperlink</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Gene Summary       | <p>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 encoding the same protein have been observed. [provided by RefSeq]</p> |
| Other Designations | MAD, mothers against decapentaplegic homolog 2 Mad protein homolog Mad, mothers against decapentaplegic homolog 2 Mad-related protein 2 SMAD, mothers against DPP homolog 2 Sma- and Mad-related protein 2 mother against DPP homolog 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

## Pathway

- [Adherens junction](#)
- [Cell cycle](#)
- [Colorectal cancer](#)
- [Pancreatic cancer](#)

- [Pathways in cancer](#)
- [TGF-beta signaling pathway](#)
- [Wnt signaling pathway](#)

## Disease

- [Adenocarcinoma](#)
- [Cleft Lip](#)
- [Cleft Palate](#)
- [Colitis](#)
- [Colorectal Neoplasms](#)
- [Esophageal Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Hypertension](#)
- [Inflammatory Bowel Diseases](#)
- [Liver Cirrhosis](#)
- [Obesity](#)
- [Osteoporosis](#)
- [Ovarian Failure](#)
- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)
- [Polycystic Ovary Syndrome](#)
- [Puberty](#)
- [Thrombophilia](#)
- [Tobacco Use Disorder](#)