

# **Product datasheet for TA347047M**

### OriGene Technologies, Inc.

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## SMAD2 Mouse Monoclonal Antibody [Clone ID: 6H5-E3-C11]

### **Product data:**

**Product Type:** Primary Antibodies

Clone Name: 6H5-E3-C11

**Applications:** IF, WB

Recommended Dilution: WB: 1:500, IF: 1:100

Reactivity: Human
Host: Mouse
Isotype: IgG1

Clonality: Monoclonal

**Immunogen:** The immunogen for SMAD2 antibody: purified recombinant human Smad2 protein fragments

expressed in E.coli.

Formulation: ascites

**Conjugation:** Unconjugated

**Storage:** Store at -20°C as received.

**Stability:** Stable for 12 months from date of receipt.

**Predicted Protein Size:** 60 kDa

**Gene Name:** SMAD family member 2

Database Link: NP 001003652

Entrez Gene 4087 Human

Q15796

#### SMAD2 Mouse Monoclonal Antibody [Clone ID: 6H5-E3-C11] - TA347047M

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]

Synonyms: hMAD-2; hSMAD2; JV18; JV18-1; MADH2; MADR2

Protein Families: Cancer stem cells, Druggable Genome, Embryonic stem cells, ES Cell Differentiation/IPS, Stem

cell relevant signaling - JAK/STAT signaling pathway, Stem cell relevant signaling - TGFb/BMP

signaling pathway, Transcription Factors

**Protein Pathways:** Adherens junction, Cell cycle, Colorectal cancer, Pancreatic cancer, Pathways in cancer, TGF-

beta signaling pathway, Wnt signaling pathway