

Basic Information

Product Name	Anti-SMAD4 Antibody (Clone#FH-19)
Gene Name	SMAD4
Source	Rabbit
Clonality	Monoclonal
Isotype	IgG
Species Reactivity	human, mouse, rat
Tested Application	WB, IHC
Contents	500 ug/ml; Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide, 0.4-0.5 mg/ml BSA and 50% glycerol.
Immunogen	A synthesized peptide derived from human Smad4
Concentration	500 ug/ml
Purification	Affinity-chromatography
Observed MW	60 kDa
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC):1:50-200

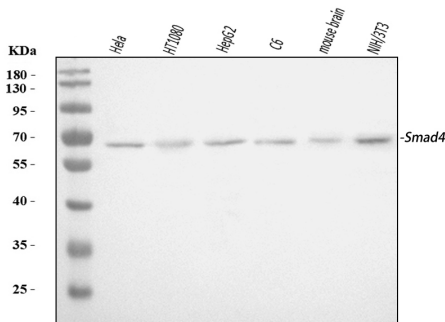
Storage

12 months from date of receipt, -20°C as supplied.

Background Information

SMAD4 (Mothers Against Decapentaplegic Drosophila Homolog of 4), also known as MADH4 or DPC4, is a protein that in humans is encoded by the SMAD4 gene. It belongs to the Drosophila family of proteins that modulate members of the TGF β protein superfamily. Hahn et al. (1996) identified the SMAD4 gene on chromosome 18q21.1. Howe et al. (1998) identified the SMAD4 gene within a region on 18q21.1 defined by linkage analysis in kindred with juvenile polyposis syndrome. To test directly the hypothesis that the SMAD4 gene is a tumor suppressor that is critical for transmitting signals from transforming growth factor-beta and related ligands. SMAD4 plays a pivotal role in signal transduction of the transforming growth factor beta superfamily cytokines by mediating transcriptional activation of target genes.

Selected Validation Data



Western blot analysis of anti- SMAD4 antibody (BM3920). The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: HELA whole cell lysates,

Lane 2: HT1080 whole cell lysates,

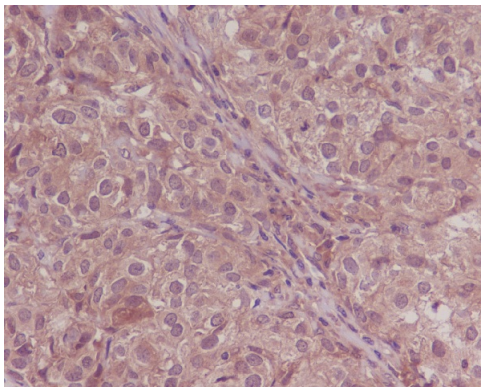
Lane 3: HepG2 whole cell lysates,

Lane 4: C6 whole cell lysates,

Lane 5: mouse brain tissue lysates,

Lane 6: NIH3T3 whole cell lysates.

Use rabbit anti- SMAD4 1:1000, probed with a goat anti-rabbit IgG-HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002). A specific band was detected for SMAD4 at approximately 65KD. The expected band size for SMAD4 is at 60KD.



IHC analysis using anti- SMAD4 antibody (BM3920). detected in paraffin-embedded section of human breast cancer tissue. Biotinylated goat anti-Rabbit IgG was used as secondary antibody. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.