SMAD4 (DPC4) clone B-8

Instructions for Use

Specification:
Signaling from the ligand-activated membrane receptor serine/threonine kinases to nuclear targets is mediated by a set of evolutionarily conserved proteins known as SMADs. Upon ligand binding, the receptors of the TGF-β family phosphorylate SMAD proteins (SMAD1 and SMAD2). These proteins then move into the nucleus, where they activate transcription. To carry out this function, the receptor activated SMAD 1 and 2 require association with the product of deleted in pancreatic carcinoma, locus 4 (DPC4), also known as SMAD4. SMAD4/DPC4 is also implicated as a tumor suppressor, since it is inactivated in more than half of pancreatic carcinomas and to a lesser extent in a variety of other cancers. The lack of SMAD4 expression is present in approximately 80% of cases of pancreatic adenocarcinoma, but rarely in endometrial (0%), colorectal (0%), ovarian (3%), lung (0%), breast (2%) adenocarcinomas, and malignant melanoma (4%). SMAD4 is an important marker for confirming a diagnosis of pancreatic adenocarcinoma. Patients with pancreatic adenocarcinomas with SMAD4 protein expression had significantly longer survival than SMAD4 negative patients.

Availability:

Catalog No.	Contents	Volume
ILM9124-C01	SMAD4	0,1 ml concentrate
ILM9124-C05	SMAD4	0,5 ml concentrate
ILM9124-C1	SMAD4	1,0 ml concentrate

Intended use: For Research Use Only

Reactivity: Human

Clone: B-8

Species of origin: Mouse

Isotype: IgG_1

Control Tissue: Pancreatic adenocarcinoma

Staining: Nuclear

Immunogen: Amino acid 1-552 representing full length Smad4 of human origin

Presentation: Purified antibody fraction from mouse anti-serum with 0.2% BSA and 15mM sodium azide

Application and suggested dilutions:
Pretreatment: Heat induced epitope retrieval in 10 mM citrate buffer, pH6.0, or in 50 mM Tris buffer pH9.5, for 20 minutes is required for IHC staining on formalin-fixed, paraffin embedded tissue sections.

- Immunohistochemical staining of formalin-fixed, paraffin embedded tissue section (dilution 1:200 to 1:400)

The optimal dilution for a specific application should be determined by the investigator.

Note: Dilution of the antibody in 10% normal goat serum followed by a goat anti-mouse secondary antibody-based detection is recommended.

Storage & Stability: Store at 2-8 °C. Do not use after expiration date printed on the vial.