SMAD4 (Pancreatic Adenocarcinoma Marker) Antibody

Mouse Monoclonal Antibody [Clone SMAD4/2440]

Catalog No	Format	Size
4089-MSM1-P0	Purified Ab with BSA and Azide at 200ug/ml	20 ug
4089-MSM1-P1	Purified Ab with BSA and Azide at 200ug/ml	100 ug
4089-MSM1-P1ABX	Purified Ab WITHOUT BSA and Azide at 1.0mg/ml	100 ug

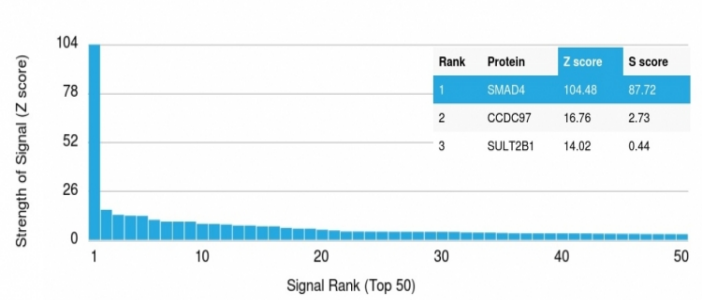
Applications	Tested Dillution	Note
Immunohistochemistry (IHC)	1-2ug/ml	30 min at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes

Product Details

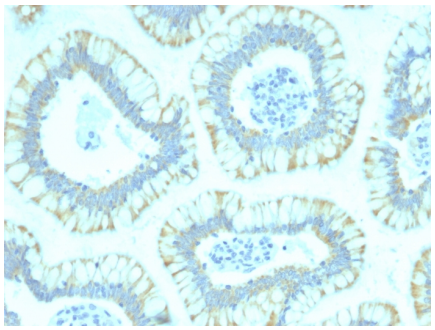
Clone	SMAD4/2440
Gene Name	SMAD4
Immunogen	Recombinant full-length human STAT6 protein
Host	Mouse
Clonality	Monoclonal
Isotype / Light Chain	IgG2a / Kappa
Mol. Weight of Antigen	61kDa
Cellular Localization	Cytoplasm, Nucleus
Species Reactivity	Human
Positive Control	Jurkat or A431 cells. Pancreatic Carcinoma

**Optimal dilution for a specific application should be determined.*

Product Images for SMAD4 (Pancreatic Adenocarcinoma Marker) Antibody



Analysis of Protein Array containing >19,000 full-length human proteins using SMAD4 Mouse Monoclonal Antibody (SMAD4/2440) Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProtTM array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProtTM are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.



Formalin-fixed, paraffin-embedded human Colon Carcinoma stained with SMAD4 Mouse Monoclonal Antibody (SMAD4/2440).

Specificity & Comments

Signaling from the ligand-activated membrane receptor serine/threonine kinases to nuclear targets is mediated by a set of evolutionarily conserved proteins known as DPC4. Upon ligand binding, the receptors of the TGF-? 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 SMAD1 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. SMAD4 is absent in approximately 80% of pancreatic adenocarcinoma, but rarely in endometrial, colorectal, ovarian, lung, breast adenocarcinomas, and malignant melanom. 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.

Supplied As

200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage and Stability

Antibody with azide - store at 2 to 8 °C. Antibody without azide - store at -20 to -80 °C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

Research Areas

Cardiovascular, Developmental Biology, Colon Cancer, Infectious Disease, Neuroinflammation, Nuclear Marker, Signal Transduction, Transcription Factors

Limitations and Warranty