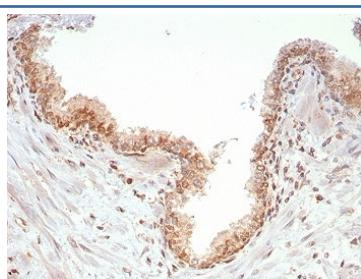


## SMAD4 Antibody [clone SMAD4/7903] (V4567)

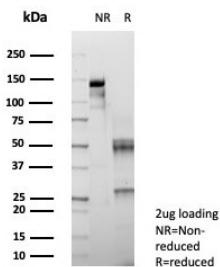
Catalog No.	Formulation	Size
V4567-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4567-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4567SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

**Bulk quote request**

<b>Availability</b>	1-3 business days
<b>Species Reactivity</b>	Human
<b>Format</b>	Purified
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal (mouse origin)
<b>Isotype</b>	Mouse IgG2, lambda
<b>Clone Name</b>	SMAD4/7903
<b>Purity</b>	Protein A/G affinity
<b>UniProt</b>	Q13485
<b>Localization</b>	Nucleus, Cytoplasm
<b>Applications</b>	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
<b>Limitations</b>	This SMAD4 antibody is available for research use only.



IHC staining of FFPE human prostate tissue with SMAD4 antibody (clone SMAD4/7903).  
HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free SMAD4 antibody (clone SMAD4/7903) as confirmation of integrity and purity.

## Description

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-beta 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. 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.

## Application Notes

Optimal dilution of the SMAD4 antibody should be determined by the researcher.

## Immunogen

A recombinant partial protein sequence (within amino acids 100-300) from the human protein was used as the immunogen for the SMAD4 antibody.

## Storage

Aliquot the SMAD4 antibody and store frozen at -20°C or colder. Avoid repeated freeze-thaw cycles.