

ARG42203 anti-Smad 7 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Smad 7
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Smad 7
Species	Human
Immunogen	Synthetic peptide within aa. 1-100 of Human Smad 7 (NP_005895.1).
Conjugation	Un-conjugated
Alternate Names	Mothers against decapentaplegic homolog 8; MADH8; MADH7; Smad7; Mothers against DPP homolog 7; Mothers against decapentaplegic homolog 7; hSMAD7; Mothers against DPP homolog 8; MAD homolog 8; CRCS3; SMAD 7; MAD homolog 7; SMAD family member 7

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:50 - 1:200
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	Mouse liver	
Observed Size	~ 43 kDa	

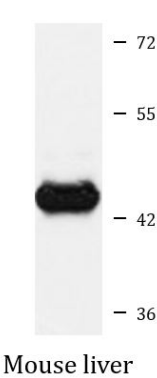
Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Bioinformation

Gene Symbol	SMAD7
Gene Full Name	SMAD family member 7
Background	The protein encoded by this gene is a nuclear protein that binds the E3 ubiquitin ligase SMURF2. Upon binding, this complex translocates to the cytoplasm, where it interacts with TGF-beta receptor type-1 (TGFB1), leading to the degradation of both the encoded protein and TGFB1. Expression of this gene is induced by TGFB1. Variations in this gene are a cause of susceptibility to colorectal cancer type 3 (CRC3). Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2010]
Function	Antagonist of signaling by TGF-beta (transforming growth factor) type 1 receptor superfamily members; has been shown to inhibit TGF-beta (Transforming growth factor) and activin signaling by associating with their receptors thus preventing SMAD2 access. Functions as an adapter to recruit SMURF2 to the TGF-beta receptor complex. Also acts by recruiting the PPP1R15A-PP1 complex to TGFB1, which promotes its dephosphorylation. Positively regulates PDK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as a negative regulator. [UniProt]
Calculated Mw	46 kDa
PTM	Phosphorylation on Ser-249 does not affect its stability, nuclear localization or inhibitory function in TGFB signaling; however it affects its ability to regulate transcription (By similarity). Phosphorylated by PDK1. Ubiquitinated by WWP1 (By similarity). Polyubiquitinated by RNF111, which is enhanced by AXIN1 and promotes proteasomal degradation (PubMed:14657019, PubMed:16601693). In response to TGF-beta, ubiquitinated by SMURF1; which promotes its degradation (PubMed:11278251). Acetylation prevents ubiquitination and degradation mediated by SMURF1. [UniProt]
Cellular Localization	Nucleus. Cytoplasm. Note=Interaction with NEDD4L or RNF111 induces translocation from the nucleus to the cytoplasm (PubMed:16601693). TGF-beta stimulates its translocation from the nucleus to the cytoplasm. PDK1 inhibits its translocation from the nucleus to the cytoplasm in response to TGF-beta (PubMed:17327236). [UniProt]

Images



ARG42203 anti-Smad 7 antibody WB image

Western blot: 25 µg of Mouse liver lysate stained with ARG42203 anti-Smad 7 antibody at 1:1000 dilution.