

Anti-Kif 7 antibody



Description

Kif 7 is a protein encoded by the KIF7 gene which is approximately 150,5 kDa. Kif 7 is localised to the cilium tip. It is involved in signalling by hedgehog and GPCR. It functions as a negative regulator of the SHH pathway by preventing inappropriate activation of GLI2 in the absence of a ligand, and as a positive regulator by preventing the processing of GLI3 into its repressor form. Kif 7 is expressed in embryonic stem cells and Jurkat T-cells. Mutations in the KIF7 gene may result in Bardet-Biedl syndrome. STJ96965 was developed from clone 3F8 and was affinity-purified from mouse ascites by affinity-chromatography using specific immunogen. This antibody detects endogenous Kif 7 proteins.

Model	STJ96965
Host	Mouse
Reactivity	Human, Mouse, Rat
Applications	IF
Immunogen	Synthetic Peptide
Gene ID	374654
Gene Symbol	KIF7
Dilution range	IHC 1:200
Specificity	The antibody detects endogenous Kif 7 proteins.
Tissue Specificity	Embryonic stem cells, melanotic melanoma and Jurkat T-cells. Expressed in heart, lung, liver, kidney, testis, retina, placenta, pancreas, colon, small intestine, prostate and thymus.
Purification	The antibody was affinity-purified from mouse ascites by affinity-

chromatography using specific immunogen.

Clone ID	3F8
Note	For Research Use Only (RUO).
Protein Name	Kinesin-like protein KIF7
Clonality	Monoclonal
Conjugation	Unconjugated
Isotype	IgG1
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:30497OMIM:146510
Alternative Names	Kinesin-like protein KIF7
Function	Essential for hedgehog signaling regulation: acts as both a negative and positive regulator of sonic hedgehog (Shh) and Indian hedgehog (Ihh) pathways, acting downstream of SMO, through both SUFU-dependent and -independent mechanisms . Involved in the regulation of microtubular dynamics. Required for proper organization of the ciliary tip and control of ciliary localization of SUFU-GLI2 complexes . Required for localization of GLI3 to cilia in response to Shh. Negatively regulates Shh signaling by preventing inappropriate activation of the transcriptional activator GLI2 in the absence of ligand. Positively regulates Shh signaling by preventing the processing of the transcription factor GLI3 into its repressor form. In keratinocytes, promotes the dissociation of SUFU-GLI2 complexes, GLI2 nuclear translocation and Shh signaling activation . Involved in the regulation of epidermal differentiation and chondrocyte development .
Cellular Localization	Cell projection, cilium Cytoplasm, cytoskeleton, cilium basal body. Localizes to the cilium tip.