Datasheet for ABIN7153209

anti-TIGAR antibody (AA 24-188) (FITC)

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Overview

Quantity:	100 µg
Target:	TIGAR
Binding Specificity:	AA 24-188
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This TIGAR antibody is conjugated to FITC
Application:	Please inquire

Product Details

Immunogen:	Recombinant Human Fructose-2,6-bisphosphatase TIGAR protein (24-188AA)
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	>95%, Protein G purified

Target Details

Target:	TIGAR
Alternative Name:	TIGAR (TIGAR Products)
Background:	Background: Fructose-bisphosphatase hydrolyzing fructose-2,6-bisphosphate as well as fructose-1,6-bisphosphate (PubMed:19015259). Acts as a negative regulator of glycolysis by

Target Details

	lowering intracellular levels of fructose-2,6-bisphosphate in a p53/TP53-dependent manner, resulting in the pentose phosphate pathway (PPP) activation and NADPH production (PubMed:16839880, PubMed:22887998). Contributes to the generation of reduced glutathione to cause a decrease in intracellular reactive oxygen species (ROS) content, correlating with its ability to protect cells from oxidative or metabolic stress-induced cell death (PubMed:16839880, PubMed:19713938, PubMed:23726973, PubMed:22887998, PubMed:23817040). Plays a role in promoting protection against cell death during hypoxia by decreasing mitochondria ROS levels in a HK2-dependent manner through a mechanism that is independent of its fructose-bisphosphatase activity (PubMed:23185017). In response to cardiac damage stress, mediates p53-induced inhibition of myocyte mitophagy through ROS levels reduction and the subsequent inactivation of BNIP3. Reduced mitophagy results in an enhanced apoptotic myocyte cell death, and exacerbates cardiac damage (By similarity). Plays a role in adult intestinal regeneration, contributes to the growth, proliferation and survival of intestinal crypts following tissue ablation (PubMed:23726973). Plays a neuroprotective role against ischemic brain damage by enhancing PPP flux and preserving mitochondria functions (By similarity). Protects glioma cells from hypoxia- and ROS-induced cell death by inhibiting glycolysis and activating mitochondrial energy metabolism and oxygen consumption in a TKTL1-dependent and p53/TP53-independent manner (PubMed:22887998). Plays a role in cancer cell survival by promoting DNA repair through activating PPP flux in a CDK5-ATM-dependent signaling pathway during hypoxia and/or genome stress-induced DNA damage responses (PubMed:25928429). Involved in intestinal tumor progression (PubMed:23726973). Aliases: 6-bisphosphatase TIGAR antibody, C12ORF5 antibody, chromosome 12 open reading frame 5 antibody, FR2BP antibody, Fructose-2,6-bisphosphatase TIGAR antibody, Fructose-2,6-bisphosphate 2-phosphatase antibody, Probable fructose 2,6 bisphosphatase TIGAR antibody, Probable fructose-2 antibody, tigar antibody, TIGAR_HUMAN antibody, TP53 induced glycolysis and apoptosis regulator antibody, TP53 induced glycolysis regulatory phosphatase antibody, TP53-induced glycolysis and apoptosis regulator antibody, Transactivated by NS3TP2 protein antibody
UniProt:	Q9NQ88
Pathways:	Warburg Effect

Application Details

Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Preservative: 0.03 % Proclin 300 Constituents: 50 % Glycerol, 0.01M PBS, PH 7.4
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.