

Rabbit anti-Human TIGAR Polyclonal Antibody | anti-TIGAR antibody

TIGAR Antibody

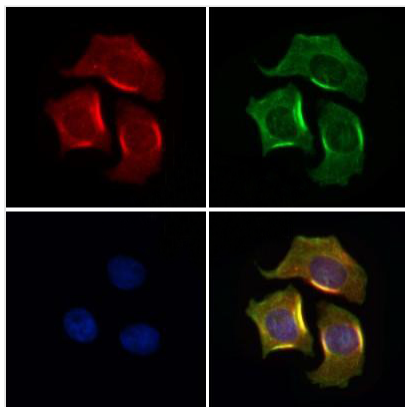
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA328938	Rabbit	Human	ELISA

PRODUCT SYNONYMS

TIGAR; Polyclonal Antibody; TIGAR Antibody; 6-bisphosphatase TIGAR; C12ORF5; chromosome 12 open reading frame 5; FR2BP; Fructose-2; 6-bisphosphate 2-phosphatase; Probable fructose 2; 6 bisphosphatase TIGAR; Probable fructose-2; tigar; TIGAR_HUMAN; TP53 induced glycolysis and apoptosis regulator; TP53 induced glycolysis regulatory phosphatase; TP53-induced glycolysis and apoptosis regulator; Transactivated by NS3TP2 protein; anti-TIGAR antibody

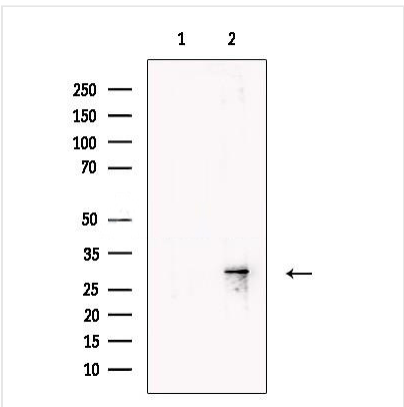
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	IgG
Specificity	TIGAR Antibody detects endogenous levels of total TIGAR.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin (Thermo Fisher Scientific).
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol
Concentration	1mg/ml (varies by lot)
Sequence Length	270
Applicable Applications for anti-TIGAR antibody	ELISA
Immunogen	A synthesized peptide derived from human TIGAR, corresponding to a region within the internal amino acids.
Fragment	Fab fragment
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IF (Immunofluorescence)

AAA328938 staining HepG2 cells by IF/ICC. The samples were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25Å°C. Samples were then incubated with primary Ab(AAA328938 1:200) and mouse anti-beta tubulin Ab(T0023 1:200) for 1 hour at 37Å°C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody. The nuclear counter stain is DAPI(blue).



WB (Western Blot)

Western blot analysis of extracts from HeLa cells, using TIGAR Antibody. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-TIGAR antibody

Function: Fructose-bisphosphatase hydrolyzing fructose-2,6-bisphosphate as well as fructose-1,6-bisphosphate (PubMed:19015259). Acts as a negative regulator of glycolysis by 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).

Subcellular Location: Cytoplasm. Nucleus. Mitochondrion. Note: Translocated to the mitochondria during hypoxia in a HIF1A-dependent manner (PubMed:23185017). Colocalizes with HK2 in the mitochondria during hypoxia (PubMed:23185017). Translocated to the nucleus during hypoxia and/or genome stress-induced DNA damage responses in cancer cells (PubMed:25928429). Translocation to the mitochondria is enhanced in ischemic cortex after reperfusion and/or during oxygen and glucose deprivation (OGD)/reoxygenation insult in primary neurons (By similarity).

Tissue Specificity: Expressed in the brain (PubMed:22887998). Expressed in breast tumors (PubMed:21820150). Expressed in glioblastomas (PubMed:22887998).

Subunit Structure: Interacts with HK2; the interaction increases hexokinase HK2 activity in a hypoxia- and HIF1A-dependent manner, resulting in the regulation of mitochondrial membrane potential, thus increasing NADPH production and decreasing intracellular ROS levels (PubMed:23185017).

Similarity: Belongs to the phosphoglycerate mutase family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	9966849
NCBI GeneID	57103
NCBI Accession #	NP_065108.1
NCBI GenBank Nucleotide #	NP_065108.1
UniProt Accession #	Q9NQ88
Molecular Weight	Observed Molecular Weight: (Observed)30kD. Predicted Molecular Weight: (Calculated)30kDa.
NCBI Official Full Name	fructose-2,6-bisphosphatase TIGAR
NCBI Official Synonym Full Names	TP53 induced glycolysis regulatory phosphatase
NCBI Official Symbol	TIGAR
NCBI Official Synonym Symbols	FR2BP; C12orf5
NCBI Protein Information	fructose-2,6-bisphosphatase TIGAR
UniProt Protein Name	Fructose-2,6-bisphosphatase TIGAR
UniProt Gene Name	TIGAR
UniProt Synonym Gene Names	C12orf5
UniProt Entry Name	TIGAR_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/tigar-antibody-elisa/328938>