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GAS2 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP55123

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	O43903
Reactivity	Rat, Pig, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	34945
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human GAS2
Epitope Specificity	141-240/313
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm > cytoskeleton. Membrane. Component of the microfilament system. Colocalizes with actin fibers at the cell border and along the stress fibers in growth-arrested fibroblasts. Mainly membrane-associated. When hyperphosphorylated, accumulates at membrane ruffles.
SIMILARITY	Belongs to the GAS2 family. Contains 1 CH (calponin-homology) domain. Contains 1 GAR domain.
Post-translational modifications	Cleaved, during apoptosis, on a specific aspartic residue by caspases. Phosphorylated on serine residues during the G0-G1 transition phase.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Gas2 is a 313 amino acid protein encoded by the human gene GAS2. Gas2 is thought to play a role in apoptosis by acting as a cell death substrate for caspases. Gas2, a component of the microfilament system, is cleaved by a caspase (caspase-3 and caspase-7) at Asparagine 278 during apoptosis. The cleaved form resulting from this dramatically induces the rearrangement of the Actin cytoskeleton and causes potent changes in the shape of the affected cells. Gas2 is believed to also be involved in the membrane ruffling process. During the G0-G1 transition phase Gas2 can be found phosphorylated on its serine residues. Gas2 is a cytoskeleton and peripheral membrane protein that co-localizes with Actin fibers at the cell border and along the stress fibers in growth-arrested fibroblasts. Gas2 is mainly membrane-associated but when hyperphosphorylated it will accumulate at membrane ruffles. Gas2 is specifically expressed at growth arrest and is ubiquitously expressed with highest levels found in liver, lung and kidney. There is no evidence, however, of Gas2 expression in spleen.

Additional Information

Gene ID	2620

Other Names	Growth arrest-specific protein 2, GAS-2, GAS2
Target/Specificity	Ubiquitously expressed with highest levels in liver, lung, and kidney. Not found in spleen.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	GAS2
Function	Required to maintain microtubule bundles in inner ear supporting cells, affording them with mechanical stiffness to transmit sound energy through the cochlea.
Cellular Location	Cytoplasm, cytoskeleton, stress fiber. Membrane {ECO:0000250|UniProtKB:P11862}; Peripheral membrane protein {ECO:0000250|UniProtKB:P11862} Note=Component of the microfilament system. Colocalizes with actin fibers at the cell border and along the stress fibers in growth- arrested fibroblasts. Mainly membrane-associated. When hyperphosphorylated, accumulates at membrane ruffles (By similarity) Colocalizes with detyrosinated alpha-tubulin along the length of microtubule bundles in inner and outer pillar cells (By similarity) {ECO:0000250|UniProtKB:P11862}
Tissue Location	Ubiquitously expressed with highest levels in liver, lung, and kidney. Not found in spleen