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GEM Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP55136

Specification

GEM Polyclonal Antibody - Product Information

Application	**WB, IHC-P, IHC-F, IF, ICC, E**
Primary Accession	P55040
Reactivity	**Rat, Pig, Dog, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**34 KDa**
Physical State	**Liquid**
Immunogen	**KLH conjugated synthetic peptide derived from human GEM**
Epitope Specificity	**201-296/296**
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	**Cell membrane; Peripheral membrane protein; Cytoplasmic side.**
SIMILARITY	**Belongs to the small GTPase superfamily. RGK family.**
SUBUNIT	**Interacts with calmodulin in a Ca(2+)-dependent manner. Binds ROCK1.**
Post-translational modifications	**Phosphorylated on tyrosine residues.**
Important Note	**This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.**

Background Descriptions
Gem belongs to the Rad/Gem/Kir (RGK) subfamily of Ras-related GTPases, which lack typical C-terminal amino acid motifs for isoprenylation. Rad and Gem bind calmodulin in a Ca2+-dependent manner via this C-terminal extension, involving residues 278–297 in human Rad. High intracellular Gem levels, which interact with intact microtubules and microfilaments, promote profound changes in cell morphology. Ectopic Gem expression is sufficient to stimulate cell flattening and neurite extension in N1E-115 and SH-SY5Y neuroblastoma cells, suggesting a role for Gem in cytoskeletal rearrangement and/or morphological differentiation of neurons. Gem was also observed in developing trigeminal nerve ganglia in 12.5 day mouse embryos, demonstrating that Gem expression is a property of normal ganglionic development. The interaction of Gem with beta-subunits regulates Ca2+ channel expression at the cell surface. The human Gem gene maps to chromosome 8q22.1.

GEM Polyclonal Antibody - Additional Information

Gene ID 2669

Other Names
GTP-binding protein GEM, GTP-binding mitogen-induced T-cell protein, RAS-like protein KIR, GEM, KIR

Target/Specificity
Most abundant in thymus, spleen, kidney, lung, and testis. Less abundant in heart, brain, liver and skeletal muscle.

Dilution
WB~~1:1000<br \>IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A

Storage
Store at -20 ℃ 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 ℃.

GEM Polyclonal Antibody - Protein Information

Name GEM

Synonyms KIR

Function
Could be a regulatory protein, possibly participating in receptor-mediated signal transduction at the plasma membrane. Has guanine nucleotide-binding activity but undetectable intrinsic GTPase activity.

Cellular Location
Cell membrane; Peripheral membrane protein; Cytoplasmic side

Tissue Location
Most abundant in thymus, spleen, kidney, lung, and testis. Less abundant in heart, brain, liver and skeletal muscle

GEM Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GEM Polyclonal Antibody - Images

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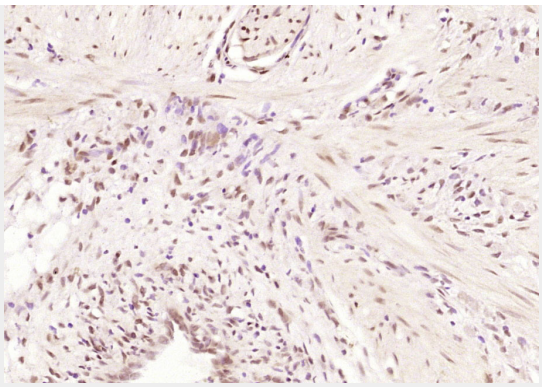

Paraformaldehyde-fixed, paraffin embedded (human gastric carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (GEM) Polyclonal Antibody, Unconjugated (bs-13331R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.