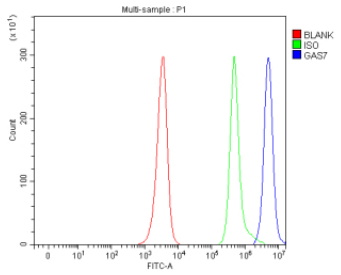
GAS7 Antibody / Growth arrest-specific protein 7 (FY12757)

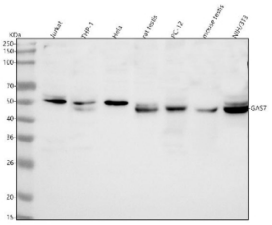
Catalog No.	Formulation	Size
FY12757	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	O60861
Applications	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This GAS7 antibody is available for research use only.



Flow Cytometry analysis of human JK cells using anti-GAS7 antibody. Overlay histogram showing JK cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GAS7 antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



Western blot analysis of GAS7 using anti-GAS7 antibody. Lane 1: human Jurkat whole cell lysates, Lane 2: human THP-1 whole cell lysates, Lane 3: human Hela whole cell lysates, Lane 4: rat testis tissue lysates, Lane 5: rat PC-12 whole cell lysates, Lane 6: mouse testis tissue lysates, Lane 7: mouse NIH/3T3 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-GAS7 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. Predicted molecular weight: 39-54 kDa (multiple isoforms).

Description

GAS7 antibody detects Growth arrest-specific protein 7, a cytoskeletal and signaling adapter protein involved in neuronal differentiation, cytoskeletal organization, and cell growth regulation. Encoded by the GAS7 gene on chromosome 17p13.1, this protein is part of the growth arrest-specific (GAS) gene family that is induced during cell cycle arrest. GAS7 contains WW and F-BAR domains that enable membrane deformation and actin cytoskeleton remodeling, supporting neurite outgrowth and cell shape changes. It is highly expressed in the nervous system, particularly in developing neurons and the cerebral cortex.

GAS7 acts as a structural and regulatory protein linking signaling pathways to cytoskeletal remodeling. Its F-BAR domain promotes membrane tubulation and extension of cellular processes, while its WW domain mediates interaction with proline-rich signaling proteins. GAS7 facilitates neurite initiation and elongation by coordinating actin and microtubule dynamics. In non-neuronal cells, it contributes to growth arrest and differentiation through modulation of cytoskeletal tension. Its expression is upregulated during cell cycle exit and differentiation, suggesting a role in maintaining terminal cell identity.

The GAS7 antibody is used in neurobiology, developmental, and cancer research to detect Growth arrest-specific protein 7 expression and localization. Western blot analysis typically identifies a 48 kilodalton band, while immunofluorescence shows cytoplasmic and membrane-associated staining consistent with its role in actin remodeling. GAS7 is also studied for its involvement in leukemia, where chromosomal translocations involving GAS7 and transcription factors such as EWSR1 have been identified, indicating potential roles in oncogenic fusion gene formation.

Beyond neuronal function, GAS7 is expressed in macrophages and fibroblasts where it regulates cell spreading, migration, and vesicle trafficking. The GAS7 antibody supports research into cytoskeletal signaling and differentiation control, particularly in studies of neuronal morphogenesis and actin network dynamics. NSJ Bioreagents provides this antibody validated for its applications, ensuring reliable detection of GAS7 across a range of tissues and model systems

Application Notes

Optimal dilution of the GAS7 antibody should be determined by the researcher.

Immunogen

E.coli-derived human GAS7 recombinant protein (Position: M1-Q421) was used as the immunogen for the GAS7 antibody.

Storage

After reconstitution, the GAS7 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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