10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

GAS Antibody
Catalog # ASC10994

Specification

GAS Antibody - Product Information

Application	**WB**
Primary Accession	Q9BTK6
Other Accession	NP_078792, 13375654
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**GAS antibody can be used for detection of GAS by Western blot at 1 µg/mL.**

GAS Antibody - Additional Information

Gene ID **79447**

Target/Specificity
C16orf53;

Reconstitution & Storage
GAS antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
GAS Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

GAS Antibody - Protein Information

Name PAGR1

Synonyms C16orf53, PA1

Function
Its association with the histone methyltransferase MLL2/MLL3 complex is suggesting a role in epigenetic transcriptional activation. However, in association with PAXIP1/PTIP is proposed to function at least in part independently of the MLL2/MLL3 complex. Proposed to be recruited by PAXIP1 to sites of DNA damage where the PAGR1:PAXIP1 complex is required for cell survival in response to DNA damage independently of the MLL2/MLL3 complex (PubMed:19124460). However, its function in DNA damage has been questioned (By similarity). During immunoglobulin class switching in activated B-cells is involved in transcription regulation of downstream switch regions at the immunoglobulin heavy-chain (Igh) locus independently of the MLL2/MLL3 complex (By similarity). Involved in both estrogen receptor-regulated gene transcription and estrogen-stimulated G1/S cell-cycle transition (PubMed:19039327). Acts as a

transcriptional cofactor for nuclear hormone receptors. Inhibits the induction properties of several steroid receptors such as NR3C1, AR and PPARG; the mechanism of inhibition appears to be gene-dependent (PubMed:23161582).

Cellular Location
Nucleus.

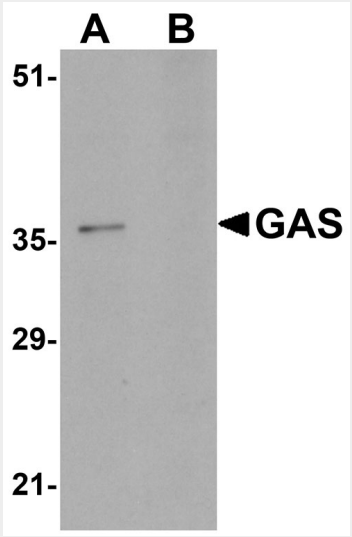
Tissue Location
Ubiquitously expressed.

GAS 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

GAS Antibody - Images



Western blot analysis of GAS in EL4 cell lysate in (A) the absence and (B) the presence of blocking peptide with GAS antibody at 1 µg/mL.

GAS Antibody - Background

GAS Antibody: Steroid receptor co-activators (SRCs) were initially described as nuclear receptor transcription co-activators, but they have recently been determined to co-regulate transcription initiated by other transcription factors. GAS is a recently identified glutamate-rich protein that interacts with SRC1, but not GRIP1 or AIB1, the other two members of the SRC family. GAS can also interact with the alpha subunit of the estrogen receptor (ERalpha), but not other receptors such as the retinoic acid receptor a, suggesting the interaction between GAS and ERalpha is relatively

specific. Depletion of GAS by RNA interference in MCF7 cells led to a decrease in the mRNA and protein levels of ER target genes such as pS2, c-Myc and cyclin D1, indicating the role of GAS in the regulation of ER target genes. GAS has also been found to associate with an SET1-like methyltransferase complex specific for H3K4 methylation, suggesting that GAS has multiple roles in transcriptional regulation.

GAS Antibody - References

Xu J, Wu RC, and O'Malley BW. Normal and cancer-related functions of the p160 steroid receptor co-activator (SCR) family. Nat. Rev. Cancer2009; 9:615-30.
Liang J, Zhang H, Zhang Y, et al. GAS, a new glutamate-rich protein, interacts differentially with SRCs and is involved in oestrogen receptor function. EMBO Rep.2009; 10:51-7.
PTIP associates with MLL3- and MLL4-containing histone H3 lysine 4 methyltransferase complex. J. Biol. Chem.2007; 13:20395-406.