

Rabbit SA2/STAG2 Polyclonal Antibody | anti-SA2/STAG2 antibody

Anti-SA2/STAG2 Antibody Picoband

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19795	Rabbit	Human, Mouse, Rat	Western Blot, Immunohistochemistry, Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay, ELISA

PRODUCT SYNONYMS

SA2/STAG2; Polyclonal Antibody; Anti-SA2/STAG2 Antibody Picoband; Breast cancer metastasis-suppressor 1; protocadherin related 15; Protocadherin-15; PCDH15; USH1F; anti-SA2/STAG2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Expressed in brain, lung, kidney, spleen and testis. Found also in the inner and outer synaptic layers, and the nerve fiber layer in adult and fetal retinas. Found in the supporting cells, outer sulcus cells and spiral ganglion of fetal cochlea. Expressed in cytotoxic tumor-derived T- and NK-cell lines as well as biopsies of nasal NK/T-cell lymphomas. Not detected in normal or in vitro activated peripheral blood cells, CD4 or CD8 lymphocytes or NK cells. Isoform 3 is expressed in brain, heart, cerebellum and kidney. CD1 isoforms, such as isoform 1, have a limited pattern of expression and is detected in testis, retina and cochlea. CD2 isoforms, such as isoforms 4 and 5, are expressed in heart, kidney, thymus, spleen, testis, retina and cochlea. CD3 isoforms, such as isoform 6, are widely expressed.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Applicable Applications for anti-SA2/STAG2 antibody	WB (Western Blot), IHC (Immunohistochemistry), ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry), ELISA
Application Notes	WB: 0.25-0.5ug/ml, Human IHC(Paraffin-embedded Section): 2-5ug/ml, Human ICC/IF: 5ug/ml, Human IF: 5ug/ml, Human FC/FACS (Fixed): 1-3ug/1x10 ⁶ cells, Human ELISA: 0.1-0.5ug/ml
Immunogen	E coli-derived human SA2/STAG2 recombinant protein (Position: E750-M1175).
Subcellular Localization	Cell membrane. Single-pass type I. membrane protein. Secreted
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross-reactivity with other proteins.
Protein Function	Calcium-dependent cell-adhesion protein. Essential for maintenance of normal retinal and cochlear function.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months. Avoid repeated freezing and thawing.



FCM (Flow Cytometry)

Figure 14. Flow Cytometry analysis of 293T cells using anti-STAG2 antibody (AAA19795).Overlay histogram showing 293T cells stained with AAA19795 (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-STAG2 Antibody (AAA19795, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



FCM (Flow Cytometry)

Figure 13. Flow Cytometry analysis of U937 cells using anti-STAG2 antibody (AAA19795).Overlay histogram showing U937 cells stained with AAA19795 (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-STAG2 Antibody (AAA19795, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

References	1. Aoi, H., Lei, M., Mizuguchi, T., Nishioka, N., Goto, T., Miyama, S., Suzuki, T., Iwama, K., Uchiyama, Y., Mitsuhashi, S., Itakura, A., Takeda, S., Matsumoto, N. Nonsense variants in STAG2 result in distinct sex-dependent phenotypes. J. Hum. Genet. 64: 487-492, 2019. Note: Retraction: J. Hum. Genet. 65: 811 only, 2020. 2. Balbas-Martinez, C., Sagrera, A., Carrillo-de-Santa-Pau, E., Earl, J., Marquez, M., Vazquez, M., Lapi, E., Castro-Giner, F., Beltran, S., Bayes, M., Carrato, A., Cigudosa, J. C., and 21 others. Recurrent inactivation of STAG2 in bladder cancer is not associated with aneuploidy. Nature Genet. 45: 1464-1469, 2013. 3. Carramolino, L., Lee, B. C., Zaballos, A., Peled, A., Barthelemy, I., Shav-Tal, Y., Prieto, I., Carmi, P., Gothelf, Y., Gonzalez de Buitrago, G., Aracil, M., Marquez, G., Barbero, J. L., Zipori, D. SA-1, a nuclear protein encoded by one member of a novel gene family: molecular cloning and detection in hemopoietic organs. Gene 195: 151-159, 1997. Note: Erratum: Gene 206: 283 only, 1998.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	31563531
NCBI GeneID	10735
NCBI Accession #	NP_006594.3
NCBI GenBank Nucleotide #	NM_006603.4
UniProt Accession #	Q8N3U4; O00540; Q5JTI6; Q68DE9; Q9H1N8; B1AMT5; D3DTF5
Molecular Weight	145,751 Da
NCBI Official Full Name	cohesin subunit SA-2 isoform b
NCBI Official Synonym Full Names	stromal antigen 2
NCBI Official Symbol	STAG2
NCBI Official Synonym Symbols	SA2; SA-2; SCC3B; bA517O1.1
NCBI Protein Information	cohesin subunit SA-2; SCC3 homolog 2
UniProt Protein Name	Cohesin subunit SA-2
UniProt Gene Name	STAG2
UniProt Synonym Gene Names	SA2
UniProt Entry Name	STAG2_HUMAN

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