

GM2 Ganglioside Recombinant Antibody | GM2 recombinant antibody

Anti-GM2 Ganglioside [L55-81]

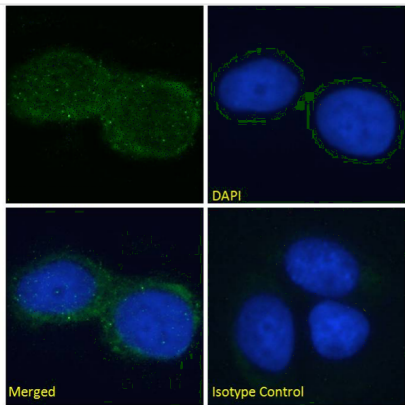
CATALOG # AAA72044	REACTIVITY Human	APPLICATIONS Immunohistochemistry, ELISA
------------------------------	----------------------------	--

PRODUCT SYNONYMS

GM2 Ganglioside; Monoclonal Recombinant Antibody; Anti-GM2 Ganglioside [L55-81]; GM2 recombinant antibody

PRODUCT SPECIFICATIONS

Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG kappa
Clone Number	L55-81
Specificity	L55-81 binds specifically to GM2 ganglioside; this antibody shows no reactivity towards GM1, GM3, GD2 or normal tissues- the L55-81 epitope contains both a GalNAc and sialic acid bound to lactose. Ganglioside GM2 (GalNAcbeta1-4(NeuNAcalpha2-3)Galbeta1-4Glcbeta-1ceramide) is a glycosphingolipid present on the cell surface and a major tumor-differentiation antigen in human melanoma and hepatoma.
Purity/Purification	Protein A Affinity Purified
Form/Format	PBS with 0.02% Proclin 300.
Concentration	1mg/ml (varies by lot)
Applicable Applications for GM2 recombinant antibody	IHC (Immunohistochemistry), TLC (Thin-layer Chromatography), ELISA
Immunogen	L55-81 was prepared by isolating EBV-immortalized peripheral blood B lymphocytes from a human donor with melanoma.
Chimeric Use Statement	This chimeric rabbit antibody was made using the variable domain sequences of the original Human IgM format, for improved compatibility with existing reagents, assays and techniques.
Clone Note	L55-81 reacts positively to melanoma cell lines with high GM2 expression (M14; M24), and shows no binding to normal cell types or cell lines M15 or M25 which have low GM2 expression and high GM3 expression. This specificity can be confirmed by ELISA and TLC immunostaining by testing a variety of gangliosides and neutral glycolipids. L55-81 is able to lyse cells from the M14 melanoma cell line (which has high GM2 expression) in the presence of human or rabbit complement, but not in the absence of complement - this was shown by a [51Cr] release assay. Biotinylated L55-81 has been used for IHC of acetone-fixed sections of tumor tissue in an avidin-biotin complex immunoperoxidase system. Statistically significant positive staining (determined by Fisher's exact test) was displayed with melanoma, colon carcinoma and ovary carcinoma tumor tissues. Staining has also be observed with breast carcinoma, prostate carcinoma and kidney carcinoma.
Buffer Composition	PBS only with 0.02% Proclin 300.
Preparation and Storage	Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.



IF (Immunofluorescence)
Immunofluorescence staining of fixed MCF7 cells with anti-GM2 ganglioside antibody L55-81. Immunofluorescence analysis of paraformaldehyde fixed MCF7 cells on Shi-fix coverslips, permeabilized with 0.15% Triton and stained with the chimeric rabbit IgG version of L55-81 (AAA72044) at 10 ug/ml for 1h followed by Alexa Fluor 488 secondary antibody (1 ug/ml), showing diffuse membrane and cytoplasmic staining. The nuclear stain is DAPI (blue). Panels show from left-right, top-bottom AAA72044, DAPI, merged channels and an isotype control. The isotype control was stained with an anti-Fluorescein antibody followed by Alexa Fluor 488 secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for GM2 recombinant antibody	Recombinant monoclonal antibody to GM2 ganglioside. Manufactured using the recombinant platform with variable regions (i.e. specificity) from the hybridoma L55-81.
Product Categories/Family for GM2 recombinant antibody	Cancer; Oncology; Melanoma; Cell-type Marker; Tumo-differentiation Antigen; Carcinoma; Hepatoma
References	Nishinaka et al. Development of a human monoclonal antibody to ganglioside G(M2) with potential for cancer treatment. Cancer Res. 1996 Dec 15;56(24):5666-71. PMID:8971173 Original Published Journal: Cancer Res. 1996 Dec 15;56(24):5666-71. Original Published Journal: Cancer Res. 1996 Dec 15;56(24):5666-71. Original Published PMID: 9601948 Publication Note: Describes the establishment of an anti-GM2 cell line L55-81 and its action against tumors such as by its anti-tumor activity and its ability to stain tumor sections.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.