

Rat Anti-CD77/Gb3 [38.13]: RT0002

Intended Use: For Research Use Only

Description: CD77 (Gb3), also known as the Pk blood group antigen, Burkitt's lymphoma associated antigen), or ceramide trihexoside, is a neutral glycosphingolipid composed of three carbohydrate molecules linked to a lipid moiety in the cell membrane (Gal- α 1-4Gal- β 1-4Glc- β 1-Cer). It is a key differentiation marker for germinal center B cells (specifically centroblasts entering apoptosis and Burkitt's lymphoma cells. It is highly expressed on endothelial cells especially in renal capillaries and select epithelial linings of the gastrointestinal tract. Pathological Accumulation: In Fabry disease, a genetic deficiency in α -galactosidase A causes CD77 to massively accumulate abnormally within lysosomes and extra-lysosomal space. CD77 is significantly overexpressed on the surface of several human cancers, including head and neck squamous cell carcinomas, gastric, pancreatic, and colorectal cancers. CD77 may be involved in elimination of germinal center B cells that fail to produce high affinity antibodies and serves as the primary cellular receptor for bacterial Shiga toxins and verotoxins.

Specifications

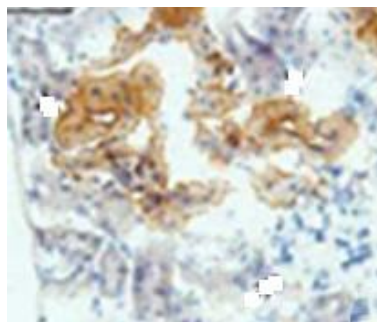
Clone:	38.13
Source:	Rat
Isotype:	IgM
Reactivity:	Human
Immunogen:	Daudi cell line (Burkitt's lymphoma)
Localization:	Nucleus
Formulation:	Antibody in PBS pH7.4, containing BSA and $\leq 0.09\%$ sodium azide (NaN ₃)
Storage:	Store at 2°- 8°C
Applications:	IHC-Frozen, Flow Cyt.
Package:	

Description	Catalog No.	Size
CD77 [38.13] Concentrated	RT0002	1 ml

IHC Procedure*

Positive Control Tissue:	Germinal center B cells, Burkitt's lymphoma cells
Concentrated Dilution:	10-200
Pretreatment:	None
Incubation Time and Temp:	Overnight at 4°C
Detection:	Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



Cryosections of mice kidney stained with anti-CD77 using DAB

References:

1. Expression of verotoxin-1 receptor Gb3 in breast cancer tissue and verotoxin-1 signal transduction to apoptosis. David Johansson, et al. BMC Cancer. 2009 Feb 26;9:67. doi: 10.1186/1471-2407-9-67.
2. Targeted Disruption of Gb3/CD77 Synthase Gene Resulted in the Complete Deletion of Globo-series Glycosphingolipids and Loss of Sensitivity to Verotoxins. Tetsuya Okuda, et al. The J Of Biological Chemistry. Vol. 281, No. 15, pp. 10230–10235, April 14, 2006. DOI 10.1074/jbc.M600057200.
3. The Detection of Shiga Toxins in the Kidney of a Patient with Hemolytic Uremic Syndrome. Hiroshi Uchida, et al. Pediatric Research volume 45, pages133–137, 1999.

Doc. 100-RT0002

Rev. A

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