

# NEU1 Monoclonal antibody

Catalog Number: 67032-1-Ig **5 Publications**

## Basic Information

|                                             |                                                                     |                                                                                           |
|---------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| <b>Catalog Number:</b><br>67032-1-Ig        | <b>GenBank Accession Number:</b><br>BC011900                        | <b>Purification Method:</b><br>Protein A purification                                     |
| <b>Size:</b><br>1000 ug/ml                  | <b>GeneID (NCBI):</b><br>4758                                       | <b>CloneNo.:</b><br>1F6D1                                                                 |
| <b>Source:</b><br>Mouse                     | <b>UNIPROT ID:</b><br>Q99519                                        | <b>Recommended Dilutions:</b><br>WB 1:1000-1:6000<br>IHC 1:150-1:600<br>IF/ICC 1:50-1:500 |
| <b>Isotype:</b><br>IgG1                     | <b>Full Name:</b><br>sialidase 1 (lysosomal sialidase)              |                                                                                           |
| <b>Immunogen Catalog Number:</b><br>AG27945 | <b>Calculated MW:</b><br>45 kDa<br><b>Observed MW:</b><br>45-48 kDa |                                                                                           |

## Applications

|                                                                                                                                                      |                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <b>Tested Applications:</b><br>WB, IHC, IF/ICC, ELISA                                                                                                | <b>Positive Controls:</b>                                                                            |
| <b>Cited Applications:</b><br>WB, IF, IP                                                                                                             | <b>WB :</b> PC-12 cells, pig liver tissue, rat liver tissue, rat pancreas tissue, mouse liver tissue |
| <b>Species Specificity:</b><br>human, mouse, rat, pig                                                                                                | <b>IHC :</b> human pancreas cancer tissue,                                                           |
| <b>Cited Species:</b><br>human, mouse                                                                                                                | <b>IF/ICC :</b> U-251 cells,                                                                         |
| <b>Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b> |                                                                                                      |

## Background Information

NEU1 (lysosomal sialidase) encodes a kind of lysosomal enzyme that could cleave terminal sialic acids from glycoproteins or glycolipids to regulate various biological processes by conformational change (PMID:28130415). In the lysosome, NEU1 is one member of a heterotrimeric complex, the others are beta-galactosidase and cathepsin A. The NEU1 is widely expressed in mammalian tissues and involved in lysosomal storage disorder sialidosis, autoimmune diseases and the malignancy and metastasis of cancer cells (PMID:19075514). NEU1 also expresses on the plasma membrane where it modulates several signalling molecules about inflammation, exocytosis, phagocytosis, cell adhesion and proliferation (PMID:21928149). Addition, it is reported that mutation in NEU1 of human could lead to sialidosis (PMID:14517945).

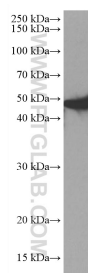
## Notable Publications

| Author                      | Pubmed ID | Journal             | Application |
|-----------------------------|-----------|---------------------|-------------|
| Rodrigo de Oliveira Formiga | 36526272  | Br J Pharmacol      | IF          |
| Qiuyi Zhao                  | 39566266  | Virology            | WB          |
| Xin Yang                    | 38460365  | Biomed Pharmacother | WB,IF       |

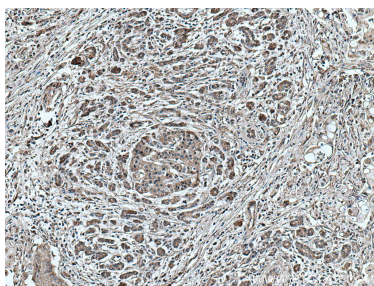
## Storage

**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
Aliquoting is unnecessary for -20°C storage

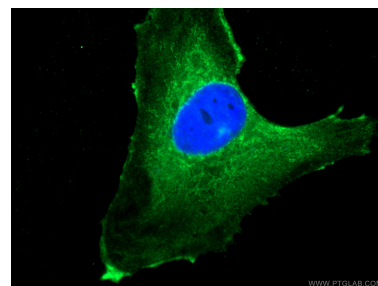
## Selected Validation Data



PC-12 cells were subjected to SDS PAGE followed by western blot with 67032-1-Ig (NEU1 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human pancreas cancer tissue slide using 67032-1-Ig (NEU1 antibody) at dilution of 1:300 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Ethanol) fixed U-251 cells using 67032-1-Ig (NEU1 antibody), at dilution of 1:200 and CoraLite® 488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).