Mouse Anti-Human ANPEP Monoclonal Antibody

Mouse, Monoclonal (ANPEP)

Cat. No. DMAB2515MH
Lot. No. (See product label)

PRODUCT INFORMATION

Antigen Description: Aminopeptidase N is located in the small-intestinal and renal microvillar membrane, and also in other plasma membranes. In the small intestine aminopeptidase N plays a role in the final digestion of peptides generated from hydrolysis of proteins by gastric and pancreatic proteases. Its function in proximal tubular epithelial cells and other cell types is less clear. The large extracellular carboxyterminal domain contains a pentapeptide consensus sequence characteristic of members of the zinc-binding metalloproteinase superfamily. Sequence comparisons with known enzymes of this class showed that CD13 and aminopeptidase N are identical.
Immunogen: A cell suspension containing osteoclasts from osteoclastomas
Isotype: IgG
Specificity: Recognizes the (Mr 150-170kDa) cell surface glycoprotein expressed in a pan-myeloid fashion. This antibody also reacts with osteoclasts in giant cell tumors of bone (osteoclastoma), clear cell chondrosarcoma and aneurysmal bone cysts. The CD13 antigen is present on most cells of myeloid origin, including granulocytes and monocytes in normal peripheral blood. CD13 is not expressed on B-cells, T-cells, platelets or erythrocytes. Expression of this antigen is greater on monocytes than on granulocytes.
Clone: 23A6
Host animal: Mouse. Hybridization of P3x63-Ag8.653 myeloma cells with spleen cells from BALB/c mice.
Source: Tissue culture
Format: FITC , Liquid
Purification: Fluorescein which has an absorbance maximum of 492nm and an emission maximum at 518nm has been covalently attached to anti-human CD13 and purified to assure optimal fluorochrome/protein (F/P) molar ratios. The fluorochrome/protein (F/P) molar ratio of this conjugate is 5.2.
Application: Suitable for use in flow cytometry and immunohistochemistry (acetone-fixed frozen sections). We recommend using 1µg to stain 1.0 x 10^6 cells in flow cytometric applications. Each laboratory should determine an optimum working titer for use in its particular application. Other applications have not been tested but use in such assays should not necessarily be excluded. Centrifuge before opening to ensure complete recovery of vial contents.

PACKAGING

Concentration: 100µg/ml (OD280nm)
Buffer: 0.01M PBS, pH 7.2 containing 1% BSA
Preservative: 0.09% Sodium azide
Storage: Store at 2-8°C. DO NOT FREEZE.
Warning: This product contains sodium azide, which has been classified as Xn (Harmful), in European Directive 67/548/EEC in the concentration range of 0.1-1.0%. When disposing of this reagent through lead or copper plumbing, flush with copious volumes of water to prevent azide build-up in drains.

ANTIGEN GENE INFORMATION

Gene Name: ANPEP alanyl (membrane) aminopeptidase [*Homo sapiens*]
Official Symbol: ANPEP
Synonyms: APN; CD13; LAP1; P150; PEPN; GP150; ANPEP; minopeptidase N; AP-M; AP-N; hAPN; aminopeptidase M; OTTHUMP00000194690; alanyl aminopeptidase; microsomal aminopeptidase; myeloid plasma membrane glycoprotein CD13
GeneID: 290
mRNA Refseq: NM_001150
Protein Refseq: NP_001141
MIM: 151530
UniProt ID: P15144
Chromosome Location: 15q25-q26
Pathway: C-MYB transcription factor network, organism-specific biosystem; Glutathione metabolism, organism-specific biosystem; Glutathione metabolism, conserved biosystem; Hematopoietic cell lineage, organism-specific biosystem; Hematopoietic cell lineage, conserved biosystem; Metabolic pathways, organism-specific biosystem; Renin-angiotensin system, organism-specific biosystem; Renin-angiotensin system, conserved biosystem.
Function: aminopeptidase activity; metal ion binding; metallopeptidase activity; peptidase activity; peptide binding; receptor activity; zinc ion binding

REFERENCES

1. Horton, A. M., et al., (1985), Cancer Res., **45**:5663.
2. Yeager CL, Ashmun RA, Williams RK, et al. (1992). "Human aminopeptidase N is a receptor for human coronavirus 229E". *Nature* **357** (6377): 420–2.

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