



Qty: 100 µg/200 µL

Mouse anti-CD91α

Catalog No. 37-3800

Lot No.

Mouse anti-CD91α

FORM

This monoclonal antibody is supplied as a 200 µL aliquot at a concentration of 0.5 mg/mL in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

CLONE: A2MRα-2⁽²⁾

ISOTYPE: Mouse IgG₁-kappa

IMMUNOGEN

Purified human CD91 alpha chain protein.

SPECIFICITY

This antibody is specific for the α-chain of human CD91 protein. On Western blots, it identifies a band at ~515 kDa.

REACTIVITY

Reactivity has been confirmed with pure CD91 protein an human liver and placenta homogenates by Western blotting, as well as with frozen human liver, brain, lymph node, duodenum and kidney.¹

Sample	Immuno-histochemistry (Frozen)	Immuno-histochemistry (Paraffin)	Immuno-fluorescence	Flow Cytometry	Western Blotting
Human	+++	+	+++	++	+++
Mouse	ND	ND	ND	ND	0
Rat	ND	ND	ND	ND	0

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

Western Blotting^(1,2): 1 µg/mL
Immunohistochemistry (frozen)⁽¹⁾: 10 µg/mL
Immunofluorescence: 10 µg/mL
Flow Cytometry: 10 µg/mL

STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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PI373800

(Rev 10/08) DCC-08-1089

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BACKGROUND

CD91, also known as α_2 -macroglobulin receptor (α_2 MR), apolipoprotein E receptor (ApoER) and low density lipoprotein receptor-related protein (LRP), is a large two-chain membrane protein that binds the proteinase-activated form of the plasma membrane protein α_2 M.¹ α_2 M is a proteinase-inhibitor containing a region that is a substrate for a wide range of proteinases including trypsin, chymotrypsin, plasmin, neutrophil elastase and fibroblast collagenase.¹ Binding of α_2 M:proteinase complexes to α_2 MR is followed by endocytosis and degradation of the ligand in lysosomes.¹

CD91 consists of two non-covalently associated polypeptides of ~420 and ~85 kDa³, and has been shown to be present in a restricted spectrum of cell types, including neurons and astrocytes in the central nervous system, epithelial cells in the gastrointestinal tract, smooth muscle cells, fibroblasts, Leydig cells in testis, granulose cells in ovary, and dendritic interstitial cells of kidney.¹ The high abundance of CD91 in certain cells types of most organs suggest two different mechanisms of CD91-mediated ligand clearance.¹ CD91 is expressed on malignant cells from patients with acute and chronic myelomonocytic leukemia, while no significant expression was found on malignant cells from acute and chronic lymphatic leukemia, lymphomas, plasma cell leukemias or hairy cell leukemia.² CD91 was also shown to have a close correlation with CD14 surface expression.²

REFERENCES

1. Moestrup SK, et al. *Cell Tissue Res* 269:374-382, 1992.
2. Moestrup SK and Hokland P. *Leuk Res* 16(3):227-234, 1992.
3. Strickland DK, et al. *J Biol Chem* 265:17401-17404, 1990.

RELATED PRODUCTS

Product	Conjugate	Cat. No.
Protein A	Sepharose® 4B	10-1041
rec-Protein G	Sepharose® 4B	10-1241

Conjugate	ZyMAX™ Goat x Rabbit IgG (H+L)	ZyMAX™ Goat x Mouse IgG (H+L)
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy™3	81-6115	81-6515
Cy™5	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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