

PRODUCT INFORMATION SHEET

Monoclonal antibodies detecting human antigens

CD94

PURE	RUO	REF	IQP-643P	▽ 100 test
FITC	RUO	REF	IQP-643F	▽ 100 test
R-PE	RUO	REF	IQP-643R	▽ 100 test
APC	RUO	REF	IQP-643A	▽ 100 test

RUO **For Research Use Only**



Description

Clone HP-3D9

Isotype Murine IgG1

Specificity The mouse monoclonal antibody HP-3D9 recognizes CD94, a 70 kDa type II transmembrane glycoprotein expressed on NK cells, NK-T cells, and subsets of CD8+ T cells and gamma/delta T cells.

Species Human

Immunogen Cultured human NK cells

Summary CD94, also known as KLRD1 (killer cell lectin-like receptor D1), is a transmembrane glycoprotein of the C-type lectin family, which forms disulfide-linked heterodimers with NKG2A, B, C, E, H proteins, constituting functionally distinct receptors of NK cells and related cell types. CD94/NKG2A and CD94/NKG2B heterodimers serve as inhibitory, whereas CD94/NKG2C and CD94/NKG2E as activating receptors. The ligand for CD94/NKG2 complexes has been identified as HLA-E. Extent of CD94 expression on NK cell surface can be used to demonstrate their progress through the differentiation process.

Applications FC. Determining optimal working dilutions by titration test.

Limitations

1. Conjugates with brighter fluorochromes, like PE and APC, will have a greater separation than those with dyes like FITC and CyQ. When populations overlap, the percentage of positive cells using a selected marker can be affected by the choice of fluorescent label.
2. Use of monoclonal antibodies in patient treatment can interfere with antigen target recognition by this reagent. This should be taken into account when samples are analyzed from patients treated in this fashion. IQ Products has not characterized the effect of the presence of therapeutic antibodies on the performance of this reagent.
3. Reagents can be used in different combinations, therefore laboratories need to become familiar performance characteristics of each antibody in relation with the combined markers in normal and abnormal samples.
4. Reagent performance can be affected by the use of anticoagulants.



Handling and Storage

Antibodies are supplied in phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4. Store the vials at 2-8°C. Monoclonal antibodies should be protected from prolonged exposure to light when conjugated with fluorochromes. Reagents are stable for the period shown on the vial label when stored properly.

Warranty

Products sold hereunder are warranted only to conform to the quantity and contents stated on the label at the time of delivery to the customer. There are no warranties, expressed or implied, which extend beyond the description on the label of the product. IQ Products is not liable for property damage, personal injury, or economic loss caused by the product.

Characterization

To ensure consistently high-quality reagents, each batch of monoclonal antibody is tested for conformance with characteristics of a standard reagent.

Warning

All products contain sodiumazide. This chemical is poisonous and hazardous. Handling should be done by trained staff only.

References

1. Romero P, Ortega C, Palma A, Molina IJ, Peña J, Santamaría M: Expression of CD94 and NKG2 molecules on human CD4(+) T cells in response to CD3-mediated stimulation. J Leukoc Biol. 2001 Aug;70(2):219-24.
2. Wada H, Matsumoto N, Maenaka K, Suzuki K, Yamamoto K: The inhibitory NK cell receptor CD94/NKG2A and the activating receptor CD94/NKG2C bind the top of HLA-E through mostly shared but partly distinct sets of HLA-E residues. Eur J Immunol. 2004 Jan;34(1):81-90.
3. Yu J, Mao HC, Wei M, Hughes T, Zhang J, Park IK, Liu S, McClory S, Marcucci G, Trotta R, Caligiuri MA: CD94 surface density identifies a functional intermediary between the CD56bright and CD56dim human NK-cell subsets. Blood. 2010 Jan 14;115(2):274-81
4. Phillips JH, Chang C, Mattson J, Gumperz JE, Parham P, Lanier LL: CD94 and a novel associated protein (94AP) form a NK cell receptor involved in the recognition of HLA-A, HLA-B, and HLA-C allotypes. Immunity. 1996 Aug;5(2):163-72.
5. Seo N, Tokura Y, Ishihara S, Takeoka Y, Tagawa S, Takigawa M: Disordered expression of inhibitory receptors on the NK1-type natural killer (NK) leukaemic cells from patients with hypersensitivity to mosquito bites. Clin Exp Immunol. 2000 Jun;120(3):413-9.
6. Hallermalm K, Seki K, De Geer A, Motyka B, Bleackley RC, Jager MJ, Froelich CJ, Kiessling R, Levitsky V, Levitskaya J: Modulation of the tumor cell phenotype by IFN-gamma results in resistance of uveal melanoma cells to granule-mediated lysis by cytotoxic lymphocytes. J Immunol. 2008 Mar 15;180(6):3766-74.
7. Bovenschen HJ, Van De Kerkhof PC, Gerritsen WJ, Seyger MM: The role of lesional T cells in recalcitrant psoriasis during infliximab therapy. Eur J Dermatol. 2005 Nov Dec;15(6):454-8.
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Explanation of used symbols



Consult instructions for use
Catalogue number
Sufficient for
Caution, consult accompanying document
Keep away from (sun)light
Biological risks
Temperature limitation (°C)
For Research Use Only
Batch code
Use by yyyy-mm-dd
Manufacturer

		Label - tandem	Ex -max (nm)	Em -max (nm)
P	PURE	purified material	-	-
F	FITC	FITC	488	519
R	R-PE	PE	488, 532	578
C	CyQ	PE-Cy5.18	488, 532	667
A	APC		595, 633, 635, 647	660
PC	PerCP		488, 532	678
PCC	PerCP-Cy5.5		488, 532	695



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