Monoclonal Antibody CD69

PN IM0780 – Purified – Freeze-dried – 0.2 mg – Clone TP1.55.3

For Research Use Only. Not for use in diagnostic procedures.

SPECIFICITY

The CD69 antigen is a 60 kDa disulfide-linked dimeric structure, known as activation inducer molecule (AIM). This structure contains two differentially glycosylated forms (33 and 27 kDa) of a single core protein, that are covently associated. This activation antigen is one of the earliest appearing cell surface glycoproteins (before other activation antigens such as lL2-R) (1) after T or B lymphocyte activation (2) but is absent in resting lymphocytes. It is also expressed by activated macrophages, NK cells (3) and other types including neutrophils, eosinophils and platelets (4, 5).
Its expression in vitro can be induced by different factors such as PMA, PHA or CD3 monoclonal antibodies.
The CD69 antibody is useful in combination with CD4, CD8 and CD3 antibodies for T cell activation studies. The TP1.55.3 antibody immuno-precipitates the 60 kDa homodimer and both 27 kDa and 33 kDa subunits from activated peripheral blood lymphocytes under reduced and non-reduced conditions.
The TP1.55.3 monoclonal antibody has been assigned to the CD69 cluster of differentiation at the fourth International Workshop on Human Leucocyte Differentiation Antigens held in Vienna, Austria, in 1989 (6).

REAGENT

Monoclonal Antibody CD69
PN IM0780 – Purified – Freeze-dried –0.2 mg

Clone	TP1.55.3
Isotype	IgG2b, mouse
Immunogen	Human PBL activated for 24 h with PMA and anti CD3 monoclonal antibody
Hybridoma	P3-X63-Ag.8.653 x BALB/c spleen cells
Source	Ascites fluid
Purification	Ion exchange or affinity chromatography
Buffer	1 mg/mL bovine serum albumin in phosphate-buffered saline

APPLICATION

Studies of CD69 positive cells by flow cytometry.

STATEMENT OF WARNINGS

1. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
2. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
3. Do not use antibody beyond the expiration date on the label.
4. Avoid microbial contamination of reagents or incorrect results might occur.
5. Use good laboratory practices when handling this reagent.

STORAGE CONDITIONS AND STABILITY

This freeze-dried form may be stored at 2 – 8°C until the expiration date stated on the vial label.
No preservative has been added.

REAGENT PREPARATION

Depending of usage, reconstitute with 1 mL of distilled water, with or without 0.1% sodium azide (w/v).
The reconstituted form including 0.1% sodium azide may be stored for up to one month at 2 – 8°C.
The reconstituted form without sodium azide can be stored at –20°C or less, until the expiration date stated on the vial label.
In this case, aliquotting is recommended to avoid multiple freezing / thawing cycles.

PROCEDURE

For each application, it is recommended to establish the right range of antibody dilutions to be used for the experiment.

SELECTED RESEARCH REFERENCES

1. Lopez-Cabrera, M., Santis, A.G., Fernandez-Ruiz, E., Sanchez-Mateos, P., Sanchez-Madrid, F., “The human earliest lymphocyte activation antigen AIM/CD69 is a new member of the C-type animal lectin superfamily”, 1995, in Leucocyte Typing V, Schlossman, S.F., et al Eds, Oxford University Press, 1126-1129.
2. Cebrian, M., Yagüe, E., Rincon, M., Lopez-Botet, M., de Landazuri, M.O., Sanchez-Madrid, F., “Triggering of T-cell proliferation through AIM, an activation inducer molecule expressed on activated human lymphocytes”, 1988, J. Exp.Med., 168, 1621-1637.
3. Borrego, F., Galiani, M.D., Garcia-Cozar, F., Madueno, J.A., Perez-Bermejo,L., Santamaria, M., Pena J., Solana, R., “CD69 expression and function on NK cells”, 1995, in Leucocyte typing V, Schlossman, S.F. et al., Eds., Oxford University Press, 1427-1430.
4. Testi, R., Pulcinelli, F., Frati, L., Gazzaniga, P.P., Santoni, A., “CD69 is expressed on platelets and mediates platelet activation and aggregation”, 1990, J. Exp. Med., 172, 701-707.
5. Testi, R., d’Ambrosio, D., de Maria, R., Santoni, A., “The CD69 receptor: a multipurpose cell surface trigger for hematopoietic cells”, 1994, Immunol. Today, 15, 479-483.
6. Cebriàn, M., sanchez-Mateos, P., Redondo, J.M., Ursa, A., De Landazuri, M.O., Sanchez-Madrid, F., “CD69: a GP33/27 activation inducer molecule (AIM) recognized by a group of the Workshop activation Panel. Induction of T-cell proliferation through the AIM activation antigen”, 1989, Leucocyte Typing IV, Knapp, W., et al., Eds., Oxford University Press**,** 441-444.

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