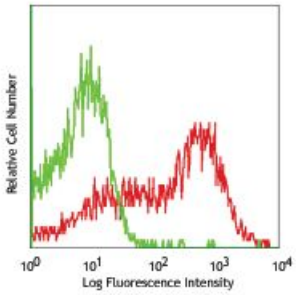
SONY

Product Data Sheet

Biotin anti-rat CD54

Catalog # / Size:	1612015 / 100 µg
Clone:	1A29
Isotype:	Mouse IgG1, κ
Immunogen:	HEV-derived cell line Ax
Reactivity:	Rat
Preparation:	The antibody was purified by affinity chromatography, and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Concentration:	0.5



LOU rat splenocytes stained with biotinylated 1A29, followed by SAV-PE

Applications:

Applications:	Flow Cytometry, Immunohistochemistry
Recommended Usage:	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤0.25 microg per million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes:	Additional reported applications (for the relevant formats) include: immunohistochemistry[1,5] of acetone-fixed frozen sections and STUF-treated paraffin-embedded sections, immunoprecipitation2, *in vitro* and *in vivo* blocking of PMA-induced T cell blast aggregation and adhesion to HEV-derived endothelial cells and purified ICAM-1 protein[2,3,4].

Application References:

1. Clark WM, *et al.* 1995. *Mol. Chem. Neuropathol.* 26:213. (IHC)
2. Tamatani T, *et al.* 1990. *Int. Immunol.* 2:165. (IP)
3. Tamatani T, *et al.* 1991. *Eur. J. Immunol.* 21:627.
4. Willenborg DO, *et al.* 1996. *J. Immunol.* 157:1973.
5. McKechnie NM, *et al.* 2002. *IVOS* 43:411. (IHC)

Description: CD54 is an 85 kD protein also known as ICAM-1. It is a member of the immunoglobulin superfamily that is expressed on high endothelial venules in lymphoid tissue, peripheral blood monocytes, dendritic cells, granulocytes and thymic stromal cells. CD54 is weakly expressed on T and B cells, although expression can be increased by activation (especially on endothelial cells). ICAM-1 is an important protein in cell adhesion, inflammation and immune responses. CD54 has been shown to bind to CD11a/CD18 (LFA-1), CD11b/CD18, CD11c/CD18, CD43, fibrinogen, and hyaluronan. The 1A29 antibody has been reported to block T cell aggregation and binding of lymphocytes to HEV-derived endothelial cells and purified ICAM-1 protein.

Antigen References:

1. Tamatani T, *et al.* 1990. *Int. Immunol.* 2:165.
2. Tamatani T, *et al.* 1991. *Eur. J. Immunol.* 21:627.
3. Turunen JP, *et al.* 1993. *Scand. J. Immunol.* 37:282.