Adhesion Molecules

- Integrin Antibodies
- Selectin Antibodies
- IGSF Antibodies
- Syndecan Antibodies
- Immuno assays

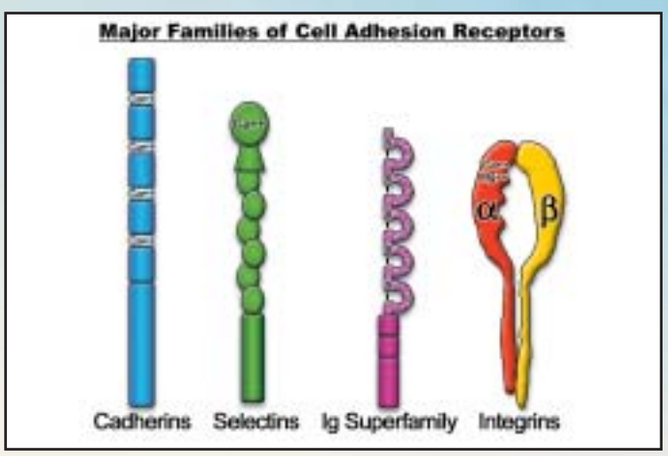
DIACLONE

1 bd Fleming - BP 1985 - 25020 Besançon cedex - France
Tel: +33 3 81 41 38 38 / Fax: +33 3 81 41 36 36
Email: info@diaclone.com / Website: www.diaclone.com

Cell Adhesion overview

Adhesion molecules play a central role in development and disease. Cell adhesion to particular ligands can affect cytoskeletal organization and cell polarity, cell proliferation and gene expression. Adhesion molecules, therefore, are modulator molecules which participate in a variety of cellular processes that include cell growth, differentiation, embryogenesis, angiogenesis, inflammation, signal transduction and tumor progression.

There are at least four superfamilies of adhesion molecules: Integrins, Selectins, the ImmunoGlobulin SuperFamily (IGSF), and Cadherins. Other important adhesion molecules like CD138 (B-B4) do not fit in these families.



Integrins
The integrins are a family of heterodimeric glycoproteins which function as cellular receptors for many Extracellular Matrix (ECM) glycoproteins. They provide a linkage between the ECM and the cytoskeleton. They participate in both cell-matrix and cell-cell adhesion in a wide variety of physiologically important processes such as haemostasis and wound healing. They are composed of structurally disctinct alpha and beta subunits, and pairs of beta subunits combined with different alpha subunits to generate disctinct receptors with unique binding properties.

Selectins
The selectins are adhesion molecules that mediate a variety of heterophilic interactions among leukocytes and endothelial cells that are important in inflammation and immune response. The selectin family is composed of three members named according to the cells in which they were originally discovered. L-selectin (CD62L) is constutively expressed on leukocytes. E-selectin (CD62E) is exclusively produced by endothelial cells after LPS or cytokine activation. P-selectin (CD62P) is preformed and stored for rapid release in granules of platelets and Weibel-Palade bodies of endothelial cells. After cytokine or histamine activation, P-selectin is rapidly mobilized to the cell surface.

Each selectin is composed of a lectin-like N-terminal domain, followed by an Epidermal Growth Factor (EGF)-like domain, a series of consensus repeat domains related to complement-regulatory proteins (CRP), a transmembrane domain and a cytoplasmic tail. The lectin domain is directly involved in mediating cell-cell contact through Ca2+ dependant interactions with cell-surface carbohydrates, especially, sialylated Lewis X antigen (sLex)

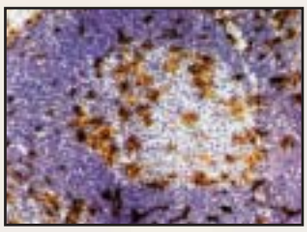
ImmunoGlobulin SuperFamily (IGSF)
The IGSF includes a number of adhesion receptors characterized by the presence of large extracellular globular-domains held in place by disulfide bonds. IGSF receptors do not require divalent cations for adhesive function. Most, but not all, members of this family are involved in hemophilic cell-cell adhesion and are thought to play important roles in embryonic development. ICAM is a member of the IGSF which is expressed on activated endothelial cells where it is involved in heterophilic cell-cell adhesion. ICAM binds to integrin counter-receptors expressed on leukocytes. VCAM-1 (Vascular Cell Adhesion Molecule), PECAM (Platelet-Endothelial Cell Adhesion Molecule) and NCAM (Neural-Cell Adhesion Molecule) belong to the IGSF.

Cadherins
The cadherins are a family of calcium-dependent molecules. Each member is found to regulate cell adhesion of particular cell types and thus is thought to be fundamental for the organization of the multicellular organism. The main members of the cadherin family are Neural (N)-cadherin, Placental (P)- cadherin and Epithelial (E)-cadherin.

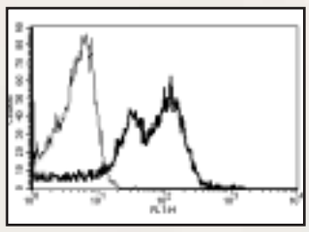
Why adhesion molecules?

Considerable interest in the measurement of soluble adhesion molecules has been reported. It can be used as a guide to monitore inflammatory syndromes such as allergic, autoimmune, infectious malignant diseases and in organ transplantations.

DIACLONE is proud to present an extended line of tools to study cell adhesion.



Anti-Integrin αX (852 533 020). Immunostaining of macrophages from frozen human tonsil.



Typical lymphocyte staining pattern with anti -nte-grin β1, clone B-D15 (852 551 010).

Monoclonal Antibodies to Human Integrins

Specificity	Clone	Isotype	Format	Size	Application	Cat N°
Integrin α2 / CD49b	AK-7	IgG1	Purified	200 µg	FCM, IHC	852 623 020
			FITC	100 tests	FCM, IHC	852 621 010
			PE	100 tests	FCM, IHC	852 622 010
Integrin α3 / CD49c	MIKd2	IgG1	Purified	200 µg	FCM, IP	852 633 020
			FITC	100 tests	FCM	852 631 010
			PE	100 tests	FCM	852 632 010
			Biotin	100 tests	FCM	852 634 010
Integrin α4 / CD49d	BU49	IgG1	Purified	200 µg	FCM	852 793 020
			FITC	100 tests	FCM	852 791 010
			PE	100 tests	FCM	852 792 010
Integrin α5 / CD49e	SAM-1	IgG2b	Purified	200 µg	FCM, IHC	852 653 020
			FITC	100 tests	FCM, IHC	852 651 020
			PE	100 tests	FCM, IHC	852 652 010
Integrin α6 / CD49f	4F10	IgG2b	Purified	200 µg	FCM, IP	852 663 020
			FITC	100 tests	FCM	852 661 010
			PE	100 tests	FCM	852 662 010
Integrin αE / CD103	2G5	IgG2a	Purified	200 µg	FCM, IHC, IP	852 803 020
Integrin αL / CD11a / LFA-1	B-B15	IgG1	Purified	200 tests	FCM	852 513 020
			Azide free	200 µg	BA	852 510 000
			FITC	100 tests	FCM	852 511 010
			PE	100 tests	FCM	852 512 010
Integrin αM / CD11b / MAC-1	44	IgG1	Purified	200 µg	FCM, IHC, IP	852 523 020
			FITC	100 tests	FCM	852 521 010
			PE	100 tests	FCM	852 522 010
Integrin αV / CD51	13C2	IgG1	Purified	200 µg	FCM, IHC	852 683 020
			FITC	100 tests	FCM, IHC	852 681 010
			PE	100 tests	FCM, IHC	852 682 010
Integrin αX / CD11c	3.9	IgG1	Purified	200 µg	FCM, IHC, IP	852 533 020
			FITC	100 tests	FCM	852 531 010
			PE	100 tests	FCM	852 532 010
Integrin β1 / CD29	B-D15	IgG2a	Purified	200 tests	FCM, IHC	852 553 020
			Azide free	200 µg	BA, IHC	852 550 000
			FITC	100 tests	FCM	852 551 010
			PE	100 tests	FCM	852 552 010
			Histology	50 tests	IHC	852 555 025
Integrin β2 / CD18	MEM 48	IgG1	Purified	200 µg	FCM, IHC, IP, WB	852 543 020
			FITC	100 tests	FCM	852 541 010
			PE	100 tests	FCM	852 542 010
Integrin β3 / CD61	PM6/13	IgG1	Purified	200 µg	FCM, IHC, IP, WB	852 723 020
			FITC	100 tests	FCM	852 721 010
			PE	100 tests	FCM	852 722 010

Monoclonal Antibodies to Human Selectins

Specificity	Clone	Isotype	Format	Size	Application	Cat N°
E-Selectin / CD62E	B-P7	IgG1	Purified	200 tests	FCM	852 733 020
			Azide free	200 µg	BA	852 730 000
	1.2B6	IgG1	Purified	200 µg	FCM, IHC, IP, WB	852 813 020
			FITC	100 tests	FCM	852 811 010
			PE	100 tests	FCM	852 812 010
L-Selectin / CD62L	B-S13	IgG1	Purified	200 µg	FCM	852 783 020
			Azide free	200 µg	BA	852 780 000
			PE	100 tests	FCM	852 782 010
P-Selectin / CD62P	AK6	IgG1	Purified	200 µg	FCM	852 753 020
			FITC	100 tests	FCM	852 751 010
			PE	100 tests	FCM	852 752 010

Monoclonal Antibodies to the Human Immunoglobulin Superfamily

Specificity	Clone	Isotype	Format	Size	Application	Cat N°
BL-CAM / CD22	RFB4	IgG1	Purified	200 µg	FCM	854 183 020
			FITC	100 tests	FCM	854 181 010
			PE	100 tests	FCM	854 182 010
H-CAM / CD44	B-F24	IgG1	Purified	200 tests	FCM, IP	852 603 020
			Azide free	200 µg	BA, IP	852 600 000
			FITC	100 tests	FCM	852 601 010
	F10-44-2	IgG2a	Purified	200 µg	FCM, IHC, IP	852 823 020
			FITC	100 tests	FCM	852 821 010
			PE	100 tests	FCM	852 822 010
ICAM-1 / CD54	B-H17	IgG1	Purified	200 tests	FCM, IHC	852 693 020
			Azide free	200 µg	BA, IHC	852 690 000
			FITC	100 tests	FCM	852 691 010
			PE	100 tests	FCM	852 692 010
			Biotin	100 tests	FCM	852 694 010
ICAM-2 / CD102	B-T1	IgG1	Purified	200 tests	FCM, IP	852 763 020
			Azide free	200 µg	BA, IP	852 760 000
			FITC	100 tests	FCM	852 761 010
ICAM-3 / CD50	B-R1	IgG1	Purified	200 tests	FCM, IP	852 673 020
			Azide free	200 µg	BA, IP	852 670 000
			FITC	100 tests	FCM	852 671 010
	101-1D2	IgG2a	Purified	200 µg	FCM, IHC, IP	852 833 020
			FITC	100 tests	FCM	852 831 010
			PE	100 tests	FCM	852 832 010
LFA-3 / CD58	B-L28	IgG1	Purified	200 tests	FCM	854 633 020
			Azide free	200 µg	BA	854 630 000
			PE	100 tests	FCM	854 632 010
NCAM / CD56	B-A19	IgG1	Purified	200 tests	FCM	852 703 020
			Azide free	200 µg	BA, FCM	852 700 000
			PE	100 tests	FCM	852 702 010
			Biotin	100 tests	FCM	852 704 010
	MEM188	IgG2a	Purified	200 µg	FCM, IP, WB	852 843 020
			FITC	100 tests	FCM	852 841 010
			PE	100 tests	FCM	852 842 010
PECAM-1 / CD31	B-B38	IgG1	Purified	200 tests	FCM	852 563 020
			Azide free	200 µg	BA	852 560 000
			FITC	100 tests	FCM	852 561 010
			PE	100 tests	FCM	852 562 010
VCAM-1 / CD106	B-K9	IgG1	Purified	200 tests	FCM	852 773 020
			Azide free	200 µg	BA	852 770 000
	I.G11B1	IgG1	Purified	200 µg	FCM, IHC, WB	852 853 020
			FITC	100 tests	FCM	852 851 010
			PE	100 tests	FCM	852 852 010
			Biotin	100 tests	FCM	852 854 010

Monoclonal Antibodies to Human Syndecans-1

Specificity	Clone	Isotype	Format	Size	Application	Cat N°
Syndecan-1 / CD138	B-B4	IgG1	Purified	200 tests	FCM, IHC	854 503 020
			Azide free	200 µg	BA, IHC	854 500 000
			FITC	100 tests	FCM	854 501 010
			PE	100 tests	FCM	854 502 010
			Histology	50 tests	IHC	854 505 025
			Biotin	100 tests	FCM	854 504 010

Human adhesion molecules Immunoassays

Specificity	Elisa		Elipair			
	1 x 96 tests	*2 x 96 tests*	*5 x 96 tests*	*10 x 96 tests*	*15 x 96 tests*	*20 x 96 tests*
E-Selectin / CD62E	850 530 096	850 530 192	851 580 005	851 580 010	851 580 015	851 580 020
L-Selectin / CD62L	850 650 096	850 650 192				
HCAM / CD44	850 570 096	850 570 192				
ICAM-1 / CD54	850 540 096	850 540 192	851 590 005	851 590 010	851 590 015	851 590 020
ICAM-2 / CD102	850 550 096	850 550 192				
ICAM-3 / CD50	850 560 096	850 560 192				
PECAM-1 / CD31	850 710 096	850 710 192				
VCAM-1 / CD106	850 580 096	850 580 192	851 660 005	851 660 010	851 660 015	851 660 020
Syndecan-1 / CD138	850 640 096	850 640 192	851 620 005	851 620 010	851 620 015	851 620 020