

Pluripotent Stem Cell Marker Antibodies

Anti-SSEA-3, SSEA-4, SSEA-1 Monoclonal Antibodies

Stage-Specific Embryonic Antigens (SSEAs) are glycan antigens known to vary in their expression levels across the stages of embryonic development and cell differentiation.¹⁾

SSEA-1, also called Lewis X Antigen, is expressed on the surface of mouse embryonic stem cells (ES cells) and induced pluripotent stem cells (iPS cells) and is often used as a mouse pluripotent stem cell marker. SSEA-3 and SSEA-4 are the Globo-series Glycosphingolipids Gb₅ and SialylGb₅, and are localized on the cell surface of human embryonic cancer cells (EC cells), ES cells, iPS cells and Muse (Multilineage-differentiating Stress Enduring) cells, where they are used as markers. SSEA-4 has also been shown to be overexpressed in many cancers, suggesting a correlation with disease progression.²⁾

TGI has a wide line-up of mouse monoclonal antibodies, synthetic glycans and glycan conjugates for SSEA-3, SSEA-4, SSEA-1.

Anti-SSEA-3 (Gb₅) Monoclonal Antibody

0.1mg/vial [A3729]

Isotype: Mouse IgG3

Specificity: SSEA-3 (Gb₅)

Anti-SSEA-4 (SialylGb₅) Monoclonal Antibody

0.1mg/vial [A3742]

Isotype: Mouse IgG2b

Specificity: SSEA-4 (SialylGb₅)

Anti-Lewis X Monoclonal Antibody

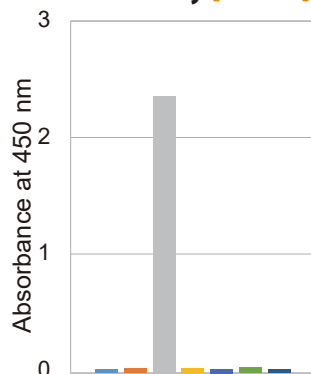
0.1mg/vial [A2578]

Isotype: Mouse IgM

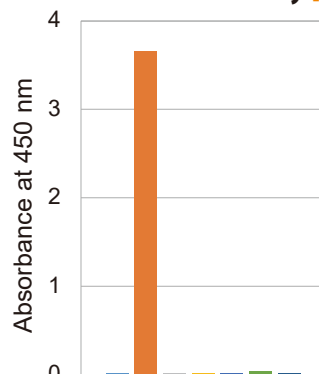
Specificity: Lewis X, SSEA-1

Binding specificity of A3729 and A3742

Anti-SSEA-3 (Gb₅) Monoclonal Antibody [A3729]



Anti-SSEA-4 (SialylGb₅) Monoclonal Antibody [A3742]






- Globo-H Ceramide [G0589]
- SialylGb₅ Ceramide [G0593]
- Gb₅ Ceramide [G0592]
- Gb₄ Ceramide [G0580]
- Gb₃ Ceramide [G0624]
- Lactosylceramide
- Ethanol

ELISA plates were coated with the indicated glycolipids. Subsequently, anti-SSEA-3 antibody [A3729] or anti-SSEA-4 antibody [A3742] were added to the wells and allowed to incubate. Primary antibodies were detected using appropriate secondary antibodies.

A3729 and A3742 show high specificity for each antigen.

Pluripotent Stem Cell Marker Antibodies: Anti-SSEA-3, SSEA-4, SSEA-1 Monoclonal Antibodies

Oligosaccharide Structure	Product		
	Glycan 	Conjugate 	Antibody 
SSEA-3 (Gb ₅)	Gb₅ Ceramide 1mg / 5mg [G0592]	HSA-Gb₅ 0.1mg/vial [H1777]	Anti-SSEA-3 (Gb₅) Monoclonal Antibody 0.1mg/vial [A3729]
	Gb₅-PrN₃ 1mg / 5mg [G0599]	Gb₅-β-pNP 5mg [G0355]	
	Globopentaose Please contact us. [G0434]		
SSEA-4 (SialylGb ₅)	Gb₅ Ceramide 1mg / 5mg [G0580]		Anti-SSEA-4 (SialylGb₅) Monoclonal Antibody 0.1mg/vial [A3742]
Lewis X/SSEA-1	SSEA-1-PrNH₂ Please contact us. [S0946]	HSA-Lewis X 0.1mg/vial [H1719] Lewis X-Magnetic Beads 0.2mg/vial [L0381]	Anti-Lewis X Monoclonal Antibody 0.1mg/vial [A2578]

References 1) J. K. Henderson, P. W. Andrews, *et al.*, *Stem Cells* **2002**, 20, 329. <https://doi.org/10.1634/stemcells.20-4-329>

2) K. Sivasubramaniyan, G. Niederfellner, H. J. Bühring, *et al.*, *Glycobiology* **2015**, 25, 902. <https://doi.org/10.1093/glycob/cwv032>

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