

# $\alpha$ -Gal Epitope (Gal $\alpha$ 1-3Gal $\beta$ 1-4GlcNAc-R) monoclonal antibody (M86)

Widely described antibody against  $\alpha$ -galactose residues with broad cross-reactivity among different species. Useful for measuring the  $\alpha$ -Gal epitope expression on cells, glycolipids and glycoproteins, characterization of hyperacute rejection (HAR) in organ and tissue transplantations and monitoring xenotransplantation experiments. The IgM isotype mimicks *in vivo* reactions and can be used for cytotoxicity assays for  $\alpha$ -Gal specific pathways (addition or presence of complement necessary). Ideal as a high-throughput screening tool for inhibitors of antibody induced cytotoxicity. Organ transplantation from pig to human result in HAR. Humans naturally produce large quantities of anti- $\alpha$ -Gal antibodies, which represent 1-3% of all circulating immunoglobulins and are produced by about 1% of all B cells. When pig organs or tissues are transplanted into the human body, the IgM isotype of anti-Gal binds to  $\alpha$ -Gal epitopes, which causes activation of the complement cascade, resulting in cell lysis. This rapid activation of complement by anti-Gal IgM is an immunological barrier that poses the greatest risk of initiating HAR. The monoclonal antibody M86 to Gal $\alpha$ 1-3Gal epitopes developed by U. Galili, *et al.* is an essential tool in the study of human xenotransplantation and related research.

This antibody is covered by our [Worry-Free Guarantee](#).

Citations: 67

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## Ordering Information

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|               |       |
|---------------|-------|
| ALX-801-090-1 | 1Vial |
|---------------|-------|

## Manuals, SDS & CofA

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## Handling & Storage

|                   |   |
|-------------------|---|
| Use/Stability     | Stable for at least 3 years when stored at -20°C.                             |
| Handling          | Avoid freeze/thaw cycles. After opening, prepare aliquots and store at -20°C. |
| Long Term Storage | -20°C   |
| Shipping          | Dry Ice   |

## Regulatory Status

RUO - Research Use Only

## Product Details

|  |  |
|--|--|
| Alternative Name                       | $\alpha$ -Galactose 1,3  |
| Application                            | ELISA, Flow Cytometry, FUNC, IHC (PS), WB  |
| Application Notes                      | Functional Application: can be used for cytotoxicity assays for $\alpha$ -Gal specific pathways  |
| Clone                                  | M86  |
| Crossreactivity                        | Does not cross-react with $\beta$ -Gal glycoproteins or BSA.   |
| Formulation                            | Liquid. Tissue culture supernatant.  |
| Host                                   | Mouse  |
| Immunogen                              | Rabbit red blood cell membrane.  |
| Isotype                                | IgM  |
| Recommendation<br>Dilutions/Conditions | Note: Do not use non-fat milk for blocking! Many blocking agents from non-human mammal sources will cross-react with the antibody. Appropriate antibody dilution may vary from lot to lot. An initial dilution of 1:5 is recommended. Suggested dilutions/conditions may not be available for all applications. Optimal conditions must be determined individually for each application. |
| Source                                 | Hybridoma tissue culture.  |
| Species Reactivity                     | Mouse, Porcine, Rat  |

|                                       |   |
|---------------------------------------|---|
| <b>Specificity</b>                    | Recognizes synthetic and naturally produced mouse, rat and pig Gal $\alpha$ 1-3Gal epitopes on glycoproteins and glycolipids. |
| <b>Technical Info / Product Notes</b> | <b>Cited samples:</b><br><a href="#">For an overview on cited samples please click here.</a>                                  |
| <b>Worry-free Guarantee</b>           | This antibody is covered by our <a href="#">Worry-Free Guarantee</a> .  |



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