

ANTI-HUMAN MUC1 GLYCOPROTEIN

**Mouse Monoclonal Antibody Against Human MUC1 (CD227)
Clone 214D4**

Catalog # 01423

200 mg/vial

SPECIFICITY:

The MUC1 glycoprotein (also known as CD227, mucin 1, polymorphic epithelial mucin (PEM), epithelial membrane antigen (EMA) and episialin) is a large cell surface glycoprotein expressed by most glandular and ductal epithelial cells as well as a variety of hematopoietic cells^{1,2,3}. A characteristic feature of the MUC1 glycoprotein is a core protein domain composed of a variable number of tandem repeats and multiple oligosaccharide side chains^{4,5}. Because the extracellular portion of MUC1 can extend beyond most cell surface proteins it is thought to play a role in cell-cell and cell-substrate adhesion⁶. The protein is highly expressed by the majority of human adenocarcinomas and is associated with a poor prognosis⁷⁻¹⁰. In the mammary gland, MUC1 is localized on the apical plasma membrane of luminal epithelial cells¹¹. The 214D4 antibody clone is particularly useful since it enriches for luminal-restricted but not bipotent epithelial progenitors from normal human mammary tissue¹¹.

CLONE: 214D4

ISOTYPE: IgG₁ (mouse)

FORMAT:

200 µg of antibody in 200 µL of 0.1M Tris-glycine, pH 7.4, 0.15M NaCl, 0.05% sodium azide 30% glycerol. Liquid at -20°C. Store at -20°C.

STABILITY/STORAGE:

Store at -20°C.

Product is stable for at least 2 years.

APPLICATIONS AND DIRECTIONS FOR USE:

The antibody is suitable for flow cytometry (10⁶ cells in 100 µL of 1-3 µg/mL antibody) and immunohistochemistry. The antibody works with paraffin sections at 1-3 µg/mL. Appropriate conditions should be established with each application.

**THIS REAGENT IS FOR LABORATORY USE ONLY.
IT IS NOT TO BE ADMINISTERED TO HUMANS.**

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