

**Anti-uPAR (human, urokinase plasminogen activator receptor)
Mouse monoclonal antibody**

Subclass: IgG1

PRODUCT NO.	MON R-4
PRESENTATION	Preparation: Protein-A purified Content: Available in 200 µL and 1 mL volumes, 1 mg/mL Solvent: 0.01 M phosphate buffer, pH 7.4, containing 0.5 M NaCl and 15 mM sodium azide Storage: In the dark at 4-8°C
ANTIGEN	Urokinase plasminogen activator receptor (uPAR), also known as CD87, is a glycolipid anchored cell surface protein consisting of three homologous domains. It binds uPA with high affinity and enhances and localizes uPA catalyzed plasminogen activation, and thereby plays a key role in cancer invasion and in several tissue remodelling processes (1-3). In addition uPAR also binds to vitronectin and may thereby have biological functions independent of its role in uPA mediated proteolysis (4,5). Elevated levels of uPAR are associated with poor prognosis in many types of cancer (2,3,6).
IMMUNOGEN	Native human uPAR
SPECIFICITY	MON R-4 is specific for human uPAR. No cross-reactivity is observed with murine uPAR, human uPA, human tPA or human PAI-1 when tested by ELISA and immunoblotting.
EPIPOPE SPECIFICITY	MON R-4 reacts with an epitope on domain 3 (7)
REACTIVITY	MON R-4 reacts with domain 3 (7) when tested by immunoprecipitation of proteolytic fragments of recombinant suPAR. MON R-4 is suitable for Western blotting of non-reduced proteins (8), for immunohistochemistry on frozen and paraffin embedded tissue (9,10) and for flow cytometry (11). MON R-4 can be used as detection antibody in ELISA.
CULTURE MEDIUM	RPMI 1640 with 10% fetal calf serum
FUSION PARTNER	X63-Ag 8.6.5.3

IMMUNIZATION

APPLICATION

Method	Usability	Dilution guideline	References
ELISA	Yes	1/1000	
Immunoblotting	Yes		8
Immunohistochemistry	Yes	1/40	9,10

The dilution guideline for ELISA is based on use as detection antibody. Users should determine the optimal dilutions for their own purposes.

REFERENCES

- Llinas P, Le Du MH, Gårdsvoll H, Danø K, Ploug M, Gilquin B, Stura EA, Ménez A (2005) Crystal structure of the human urokinase plasminogen activator receptor bound to an antagonist peptide. *EMBO J* 24:1655-1663.
- Andreasen PA, Kjøller L, Christensen (1997) The urokinase plasminogen activator system in cancer metastasis. A review. *Int J Cancer* 2: 1-22.
- Danø K, Behrendt N, Høyer-Hansen G, Johnsen M, Lund LR, Ploug M, Rømer J (2005) Plasminogen activation and cancer. *Thromb Haemo* 93:676-681.
- Mazzier R, Blasi F (2005) The urokinase receptor and the regulation of cell proliferation. *Thromb Haemo* 93:641-646.
- Madsen CD, Ferraris GM, Andolfo A, Cunningham O, Sidenius NJ (2007) uPAR-induced cell adhesion and migration: vitronectin provides the key. *Cell Biol* 177:927-939.
- Stephens RW, Nielsen HJ, Christensen IJ, Thorlacius-Ussing O, Danø K, Brønner N (1999) Plasma urokinase receptor in colorectal cancer patients: Relation to prognosis. *J Natl Cancer Inst* 91:869-874.
- Rønne E, Behrendt N, Ellis V, Ploug M, Danø K, Høyer-Hansen G (1991) Cell induced potentiation of the plasminogen activation system is abolished by a monoclonal antibody that recognizes the NH₂-terminal domain of the urokinase receptor. *FEBS Lett* 288:233-236.
- Solberg H, Rømer J, Brønner N, Holm A, Sidenius N, Danø K, Høyer-Hansen G (1994) A cleaved form of the receptor for urokinase-type plasminogen activator in invasive transplanted human and murine tumors. *Int J Cancer* 58:877-881.
- Pyke C, Græm N, Ralfkiær E, Rønne E, Høyer-Hansen G, Brønner N, Danø K (1993) Receptor for urokinase is present in tumor-associated macrophages in ductal breast carcinoma. *Cancer Res* 53:1911-1915.
- Pyke C, Ralfkiær E, Rønne E, Høyer-Hansen G, Kirkeby L, Danø K. (1994) Immunohistochemical detection of the receptor for urokinase plasminogen activator in human colon cancer. *Histopathology* 24:131-138.
- Plesner T, Ploug M, Ellis V, Rønne E, Høyer-Hansen G, Wittrup M, Pedersen TL, Tscherning K, Danø K, Hansen NE (1994) The receptor for urokinase-type plasminogen activator and urokinase is translocated from two distinct intracellular compartments to the plasma membrane on stimulation of human neutrophils. *Blood* 83:808-815.

CONDITIONS

All products are supplied on the understanding that they are for in vitro use only. The information and product are offered without guarantee as the ultimate conditions of use are beyond our control. The animals from which this product was derived have not been exposed to or inoculated with any livestock or poultry disease agents exotic to the United States or Western Europe, and did not originate from facilities where work with exotic disease agents affecting livestock or avian species is carried out.