

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

Subclass: IgG1

| PRODUCT NO.          | <b>MON U-5</b>   |                    |            |                    |            |       |     |  |       |                |     |  |  |                      |     |      |   |
|----------------------|--|--------------------|------------|--------------------|------------|-------|-----|--|-------|----------------|-----|--|--|----------------------|-----|------|---|
| PRESENTATION         | Preparation: Protein-A purified<br>Content: Available in 200 µL and 1 mL volumes, 1 mg/mL<br>Solvent: 0.01 M phosphate buffer, pH 7.4, containing 0.5 M NaCl and 15 mM sodium azide<br>Storage: In the dark at 4-8°C   |                    |            |                    |            |       |     |  |       |                |     |  |  |                      |     |      |   |
| ANTIGEN              | Urokinase plasminogen activator (uPA) is a serine protease. It converts the abundant proenzyme plasminogen to active plasmin and plays a key role in cancer invasion and a variety of tissue remodelling processes such as wound healing, mammary gland involution and placental development (1-3). Elevated levels of uPA are associated with poor prognosis in many types of cancer (2-5).   |                    |            |                    |            |       |     |  |       |                |     |  |  |                      |     |      |   |
| IMMUNOGEN            | Native human uPA   |                    |            |                    |            |       |     |  |       |                |     |  |  |                      |     |      |   |
| SPECIFICITY          | MON U-5 is specific for human uPA. No reaction with human tissue plasminogen activator (tPA) is seen when tested by ELISA, immunoblotting and enzyme inhibition. No reaction with any other human plasma proteins is seen when tested by immunoblotting.   |                    |            |                    |            |       |     |  |       |                |     |  |  |                      |     |      |   |
| EPI TOPE SPECIFICITY | MON U-5 binds to the B-chain of uPA  |                    |            |                    |            |       |     |  |       |                |     |  |  |                      |     |      |   |
| REACTIVITY           | MON U-5 binds single and two-chain uPA, uPA/PAI-1 complex and uPA/uPAR complex (6,7). A reaction is seen with LMW-uPA but not with the amino terminal fragment (ATF). MON U-5 reacts with non-reduced uPA but not with reduced uPA in Western blotting. It inhibits the enzymatic activity of uPA in the fibrin plate assay and it inhibits the uPA mediated cleavage of uPAR. MON U-5 can be used on frozen sections in immunohistochemistry applications (8).  |                    |            |                    |            |       |     |  |       |                |     |  |  |                      |     |      |   |
| CULTURE MEDIUM       | RPMI 1640 with 10% fetal calf serum  |                    |            |                    |            |       |     |  |       |                |     |  |  |                      |     |      |   |
| FUSION PARTNER       | NSI-Ag 4/1   |                    |            |                    |            |       |     |  |       |                |     |  |  |                      |     |      |   |
| IMMUNIZATION         | Female BALB/c mice immunized by intradermal injection  |                    |            |                    |            |       |     |  |       |                |     |  |  |                      |     |      |   |
| APPLICATION          | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Method</th> <th style="width: 20%;">Usability</th> <th style="width: 30%;">Dilution guideline</th> <th style="width: 20%;">References</th> </tr> </thead> <tbody> <tr> <td>ELISA</td> <td style="text-align: center;">Yes</td> <td></td> <td style="text-align: center;">5,7,9</td> </tr> <tr> <td>Immunoblotting</td> <td style="text-align: center;">Yes</td> <td></td> <td></td> </tr> <tr> <td>Immunohistochemistry</td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">1/25</td> <td style="text-align: center;">8</td> </tr> </tbody> </table> | Method             | Usability  | Dilution guideline | References | ELISA | Yes |  | 5,7,9 | Immunoblotting | Yes |  |  | Immunohistochemistry | Yes | 1/25 | 8 |
| Method               | Usability  | Dilution guideline | References |                    |            |       |     |  |       |                |     |  |  |                      |     |      |   |
| ELISA                | Yes  |                    | 5,7,9      |                    |            |       |     |  |       |                |     |  |  |                      |     |      |   |
| Immunoblotting       | Yes  |                    |            |                    |            |       |     |  |       |                |     |  |  |                      |     |      |   |
| Immunohistochemistry | Yes  | 1/25               | 8          |                    |            |       |     |  |       |                |     |  |  |                      |     |      |   |

|            |   |
|------------|---|
| REFERENCES | <ol style="list-style-type: none"> <li>1. Danø K, Andreasen PA, Grøndahl-Hansen J, Kristensen P, Nielsen LS, Skriver L (1985) Plasminogen activators, tissue degradation, and cancer. <i>Adv Cancer Res</i> 44:139-266.</li> <li>2. Andreasen PA, Kjøller L, Christensen L, Duffey MJ (1997) The urokinase plasminogen activator system in cancer metastasis. <i>Int J Cancer</i> 2:1-22.</li> <li>3. Danø K, Behrendt N, Høyer-Hansen G, Johnsen M, Lund LR, Ploug M, Rømer J (2005) Plasminogen activation and cancer. <i>Thromb Haem</i> 93:676-681.</li> <li>4. Harbeck N, Kates RE, Look MP (2002) Enhanced benefit from adjuvant chemotherapy in breast cancer patients classified high-risk according to urokinase -type plasminogen activator and plasminogen activator inhibitor type 1 (n=3424). <i>Cancae Res</i> 62:4617-22.</li> <li>5. Grøndahl-Hansen J, Christensen IJ, Rosenquist C, Brünnner N, Mouridsen HT, Danø K, Blichert-Toft M (1993) High levels of urokinase-type plasminogen activator and its inhibitor PAI-1 in cytosolic extracts of breast carcinomas are associated with poor prognosis. <i>Cancer Res</i> 53:2513-2521.</li> <li>6. Kaltoft K, Nielsen LS, Zeuthen J, Danø K (1982) Monoclonal antibody that specifically inhibits a human Mr 52,000 plasminogen-activating enzyme. <i>Proc Natl Acad Sci USA</i> 79:3720-3723.</li> <li>7. Nielsen LS, Grøndahl-Hansen J, Andreasen PA, Skriver L, Zeuthen J, Danø K (1986) Enzyme linked immunosorbent assay for human urokinase type plasminogen activator and its proenzyme using a combination of monoclonal and polyclonal antibodies. <i>J Immunoassay</i> 7:209-228.</li> </ol> |
|------------|---|

**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.