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## **Keratin, Pan Ab-1 (Clone AE1/AE3)**

### **Mouse Monoclonal Antibody**

**Cat. #DLN-09044, DLN-09045, or DLN-09043 (0.1ml, 0.5ml, or 1.0ml at 200µg/ml)** (Purified Ab with BSA and Azide)

**Cat. #DLN-09046 or DLN-09047 (0.1ml or 0.2ml at 1.0mg/ml)** (Purified Ab without BSA and Azide)

**Cat. #DLN-09048 (7.0ml)**

**Description:** Twenty human keratins are resolved with two-dimensional gel electrophoresis into acidic (pI <5.7) and basic (pI >6.0) subfamilies. The acidic keratins have molecular weights of 56.5, 55, 51, 50, 50', 48, 46, 45, and 40kDa. The basic keratins have molecular weights of 65-67, 64, 59, 58, 56 and 52kDa. Members of acidic and basic subfamilies are found together in pairs. The composition of keratin pairs varies with cell type, differentiation status and environment. Many studies have shown the usefulness of keratins as markers in cancer research and tumor diagnosis.

**Comments:** MAb AE1 recognizes the 56.5, 50, 50', 48, and 40kDa keratins of acidic subfamily, whereas the AE3 MAb reacts with the basic keratins of 65-67, 64, 59, 58, 56, and 52kDa. AE1/AE3 reacts with keratinized (56.5/65-67) and corneal (55/64) epidermis, stratified squamous epithelia of internal organs (51/59), stratified epithelia (50/58), hyperproliferative keratinocytes (48/56), and simple epithelia (45/52 and 46/54). AE1/AE3 is a broad spectrum anti pan-keratin antibody cocktail which differentiates epithelial from non-epithelial tumors.

**Species Reactivity:** Human, Monkey, Cow, Rabbit, Mouse, Rat, Chicken. Others-not known.

**Clone Designation:** AE1/AE3

**Ig Isotype:** IgG<sub>1</sub> + IgG<sub>1</sub>

**Immunogen:** Human epidermal keratin

### **Applications and Suggested Dilutions:**

- Immunofluorescence
- Immunohistology (Formalin/paraffin)  
(Ab 1-2µg/ml for 30 min at RT)
- \* [For staining of formalin-fixed tissues, digest sections with trypsin at 1mg/ml PBS, 10 min at 37°C, or Protease XXV at 1mg/ml PBS for 5 minutes at 37°C.]

The optimal dilution for a specific application should be determined by the investigator.

**Positive Control:** Skin. Lung carcinoma

**Cellular Localization:** Cytoplasmic

### **Supplied As:**

200µg/ml antibody purified from the ascites fluid by Protein G chromatography. Prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide. Also available without BSA and azide at 1mg/ml,

or

Prediluted antibody which is ready-to-use for staining of formalin-fixed, paraffin-embedded tissues

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### ***Storage and Stability:***

Ab with sodium azide is stable for 24 months when stored at 2-8°C. Antibody WITHOUT sodium azide is stable for 36 months when stored at below 0°C.

### ***Key References:***

1. Woodcock-Mitchell J; et al. Journal of Cell Biology, 1982 Nov, 95(2 Pt 1):580-8.
2. Tseng SC; et al. Cell, 1982 Sep, 30(2):361-72.
3. Eichner R; et al. J Cell Bio, 1984 98:1388-96.
4. Cooper D; et al. Differentiation, 1984, 28::30-5.

### ***Limitations and Warranty:***

Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our data sheets and website. Our warranty is limited to the actual price paid for the product. Dianova is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

### ***Material Safety Data:***

This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

***For Research Use Only***

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