

Calprotectin-Monocyte / Macrophage / L1 Protein Ab-1 (Clone MAC 387)

Mouse Monoclonal Antibody

Cat. #MS-148-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Purified Ab with BSA and Azide)**Cat. #MS-148-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml)** (Purified Ab without BSA and Azide)**Cat. #MS-148-R7 (7.0ml)** (Ready-to-Use for Immunohistochemistry)**Please note this data sheet has been changed effective December 6, 2011**

Comments: Ab-1 has been shown as an excellent monocyte marker in tissue sections. It reacts with neutrophils, monocytes, macrophages, and squamous mucosal epithelia.

Epitope: Not determined

Species Reactivity: Human, Baboon, Monkey, Pig, Cat, Dog, Guinea pig, Rat, and Mouse. Others-not known.

Clone Designation: MAC 387

Ig Isotype: IgG₁

Immunogen: Affinity purified monocyte membrane preparation

Applications and Suggested Dilutions:

- Immunohistology (Formalin/paraffin)
(Ab 1:1000 for 20 min at RT)
- * [For staining of formalin-fixed tissues, digest sections with trypsin at 1mg/ml PBS, 10 min at 37°C (Cat. #AP-9008), and use of a high-sensitivity detection system such as UltraVision LP Detection System (Cat# TL-015)]

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

- **Staining tips:** If the staining is too light, use lower dilution or longer time.
If the staining is too strong, use higher dilution or shorter time.

Positive Control: Tonsil, lymph node, or spleen

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.

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. Andersen CB; et al. *Apmis*, 1994, 102(1):23-37.
2. Coleman N; Stanley MA. et al. *Human Pathology*, 1994, 25(1):73-9.

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. Lab Vision 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

Calprotectin-Monocyte / Macrophage / L1 Protein Ab-1 (Clone MAC 387)

Mouse Monoclonal Antibody

Cat. #MS-148-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Purified Ab with BSA and Azide)

Cat. #MS-148-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)

Cat. #MS-148-R7 (7.0ml) (Ready-to-Use for Immunohistochemistry)

Please note this data sheet has been changed effective December 6, 2011

Additional Key References:

- Goebeler M; Roth J; Teigelkamp S; Sorg C. The monoclonal antibody MAC387 detects an epitope on the calcium-binding protein MRP14. *Journal of Leukocyte Biology*, 1994, 55(2):259-61.
- Lauritzen AF; Delsol G; Hansen NE; Horn T; Erbsoll J; Hou-Jensen K; Ralfkiaer E. Histiocytic sarcomas and monoblastic leukemias. A clinical, histologic, and immunophenotypical study. *American Journal of Clinical Pathology*, 1994 Jul, 102(1):45-54.
- Mori N; Yatabe Y; Oka K; Yokose T; Ishido T; Kikuchi M; Asai J. Primary gastric Ki-1 positive anaplastic large cell lymphoma: a report of two cases. *Pathol Int*, 1994, 44(2):164-9.
- Oka K; Matsumoto T. Ki-1-positive anaplastic large cell lymphoma with different phenotypes in skin nodules and lymph nodes. *Dermatology*, 1994, 188(1):52-6.
- Rugtveit J; Brandtzaeg P; Halstensen TS; Fausa O; Scott H. Increased macrophage subset in inflammatory bowel disease: apparent recruitment from peripheral blood monocytes. *Gut*, 1994 May, 35(5):669-74.
- Zelger B; Cerio R; Orchard G; Wilson-Jones E. Juvenile and adult xanthogranuloma. A histological and immunohistochemical comparison. *American Journal of Surgical Pathology*, 1994, 18(2):126-35.
- Barcikowska M; Liberski PP; Boellaard JW; Brown P; Gajdusek DC; Budka H. Microglia is a component of the prion protein amyloid plaque in the Gerstmann-Straussler-Scheinker syndrome. *Acta Neuropathologica*, 1993, 85(6):623-7.
- Bjerke K; Halstensen TS; Jahnsen F; Pulford K; Brandtzaeg P. Distribution of macrophages and granulocytes expressing L1 protein (calprotectin) in human Peyer's patches compared with normal ileal lamina propria and mesenteric lymph nodes. *Gut*, 1993 Oct, 34(10):1357-63.
- Cutolo M; Accardo S; Villaggio B; Clerico P; Bagnasco M; Coviello DA; Carruba G; Ilo Casto M; Castagnetta L. Presence of estrogen-binding sites on macrophage-like synoviocytes and CD8+, CD29+, CD45RO+ T lymphocytes in normal and rheumatoid synovium. *Arthritis and Rheumatism*, 1993, 36(8):1087-97.
- Dietl J; Horny HP; Ruck P; Kaiserling E. Dysgerminoma of the ovary. An immunohistochemical study of tumor-infiltrating lymphoreticular cells and tumor cells. *Cancer*, 1993, 71(8):2562-8.
- Horny HP; Ruck P; Xiao JC; Kaiserling E. Immunoreactivity of normal and neoplastic human tissue mast cells with macrophage-associated antibodies, with special reference to the recently developed monoclonal antibody PG-M1. *Human Pathology*, 1993, 24(4):355-8.
- Hughes D; Buckley PJ. Idiopathic retroperitoneal fibrosis is a macrophage-rich process. Implications for its pathogenesis and treatment. *American Journal of Surgical Pathology*, 1993, 17(5):482-90.
- Kaiserling E; Xiao JC; Ruck P; Horny HP. Aberrant expression of macrophage-associated antigens (CD68 and Ki-M1P) by Schwann cells in reactive and neoplastic neural tissue. Light- and electron-microscopic findings. *Modern Pathology*, 1993, 6(4):463-8.
- Nuovo GJ; Forde A; MacConnell P; Fahrenwald R. In situ detection of PCR-amplified HIV-1 nucleic acids and tumor necrosis factor cDNA in cervical tissues. *Am Journal of Pathology*, 1993, 143:40-8.
- Poston RN; Hussain IF. The immunohistochemical heterogeneity of atheroma macrophages: comparison with lymphoid tissues suggests that recently blood-derived macrophages can be distinguished from longer-resident cells. *Journal of Histochemistry and Cytochemistry*, 1993, 41(10):1503-12.
- Seki K; Hirose T; Hasegawa T; Hizawa K. Giant cell tumor of tendon sheath. An immunohistochemical observation on the characteristics and the capacity of proliferation of tumor cells. *Zentralblatt fur Pathologie*, 1993, 139(4-5):287-94.
- Sepp N; Radaszkiewicz T; Meijer CJ; Smolle J; Seewann H; Fritsch P; Kerl H. Specific skin manifestations in acute leukemia with monocytic differentiation. A morphologic and immunohistochemical study of 11 cases. *Cancer*, 1993, 71(1):124-32.
- Sugden P; Andrew JG; Andrew SM; Freemont AJ. Dermal dendrocytes in Dupuytren's disease: a link between the skin and pathogenesis? *Journal of Hand Surgery. British Volume*, 1993, 18(5):662-6.
- Veale D; Yanni G; Rogers S; Barnes L; Bresnihan B; Fitzgerald O. Reduced synovial membrane macrophage numbers, ELAM-1 expression, and lining layer hyperplasia in psoriatic arthritis as compared with rheumatoid arthritis. *Arthritis and Rheumatism*, 1993, 36(7):893-900.
- Bo L; Mork SJ; Nyland H. An immunohistochemical study of mononuclear cells in meningiomas. *Neuropathology and Applied Neurobiology*, 1992, 18(6):548-58.
- Brandtzaeg P; Dale I; Gabrielsen TO. The leucocyte protein L1 (calprotectin): usefulness as an immunohistochemical marker antigen and putative



Calprotectin-Monocyte / Macrophage / L1 Protein Ab-1 (Clone MAC 387)

Mouse Monoclonal Antibody

Cat. #MS-148-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Purified Ab with BSA and Azide)

Cat. #MS-148-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)

Cat. #MS-148-R7 (7.0ml) (Ready-to-Use for Immunohistochemistry)

Please note this data sheet has been changed effective December 6, 2011

- biological function. *Histopathology*, 1992 Aug, 21(2):191-6.
22. Fivenson DP; Beck ER; Dunstan RW; Nickoloff BJ; Moore PF. Dermal dendrocytes and T-cells in canine mycosis fungoides. Support for an animal model of human cutaneous T-cell lymphoma. *Cancer*, 1992, 70(8):2091-8.
 23. Fivenson DP; Douglass MC; Nickoloff BJ. Cutaneous expression of Thy-1 in mycosis fungoides. *American Journal of Pathology*, 1992, 141:1373-80.
 24. Greco MA; Wieczorek R; Sachdev R; Kaplan C; Nuovo GJ; Demopoulos RI. Phenotype of villous stromal cells in placentas with cytomegalovirus, syphilis, and nonspecific villitis. *American Journal of Pathology*, 1992, 141(4):835-42.
 25. Heyden A; Thrane PS; Brandtzaeg P. Loss of epithelial L1 expression is associated with cellular invasion of oral squamous cell carcinomas. *Journal of Oral Pathology and Medicine*, 1992 Aug, 21(7):330-5.
 26. Jones DB; du Boulay CE; Fleming S. MAC387: its non-specificity as a tumour marker or marker of histiocytes [letter; comment]. *Histopathology*, 1992, 21(2):199-200.
 27. Marrogi AJ; Dehner LP; Coffin CM; Wick MR. Benign cutaneous histiocytic tumors in childhood and adolescence, excluding Langerhans' cell proliferations. A clinicopathologic and immunohistochemical analysis. *American Journal of Dermatopathology*, 1992, 14(1):8-18.
 28. Paulli M; Locatelli F; Kindl S; Boveri E; Facchetti F; Porta F; Rosso R; Nespoli L; Magrini U. Sinus histiocytosis with massive lymphadenopathy (Rosai-Dorfman disease). Clinico-pathological analysis of a paediatric case. *European Journal of Pediatrics*, 1992, 151(9):672-5.
 29. Wei YQ; Hang ZB; Liu KF. In situ observation of inflammatory cell-tumor cell interaction in human seminomas (germinomas): light, electron microscopic, and immunohistochemical study. *Human Pathology*, 1992, 23(4):421-8.
 30. Bardadin KA; Scheuer PJ; Peczek A; Wejman J. Immunocytochemical observations on macrophage populations in normal fetal and adult human liver. *Journal of Pathology*, 1991, 164(3):253-9.
 31. Esiri MM; Morris CS. Immunocytochemical study of macrophages and microglial cells and extracellular matrix components in human CNS disease. 2. Non-neoplastic diseases. *Journal of the Neurological Sciences*, 1991, 101(1):59-72.
 32. Hollowood K; Holley MP; Fletcher CD. Plexiform fibrohistiocytic tumour: clinicopathological, immunohistochemical and ultrastructural analysis in favour of a myofibroblastic lesion. *Histopathology*, 1991, 19(6):503-13.
 33. Loftus B; Loh LC; Curran B; Henry K; Leader M. Mac387: its non-specificity as a tumour marker or marker of histiocytes [see comments]. *Histopathology*, 1991, 19(3):251-5.
 34. McGregor JM; Barker JN; Allen MH; MacDonald DM. Antigenic profile of human acrosyringium. *British Journal of Dermatology*, 1991, 125(5):413-8.
 35. Morris CS; Esiri MM. Immunocytochemical study of macrophages and microglial cells and extracellular matrix components in human CNS disease. 1. Gliomas. *Journal of the Neurological Sciences*, 1991, 101(1):47-58.
 36. Muller H; Takeshita M. In situ immunophenotype of macrophages and lymphocytes in granuloma formation of tuberculous lymphadenitis in HIV-infected and immunocompetent patients. *Research in Virology*, 1991, 142(2-3):159-72.
 37. Rossi ML; Buller JR; Heath SA; Carey MP; Carboni P Jr; Koutsoubelis G; Coakham HB. The monocyte/macrophage infiltrate in 35 medulloblastomas: a paraffin-wax study. *Tumori*, 1991, 77(1):36-40.
 38. Semb AG; Gabrielsen TO; Halstensen TS; Fagerhol MK; Brandtzaeg P; Vaage J. Cardiac surgery and distribution of the leukocyte L1 protein-calprotectin. *European Journal of Cardio-Thoracic Surgery*, 1991, 5(7):363-7.
 39. Takeya M; Yoshimura T; Leonard EJ; Kato T; Okabe H; Takahashi K. Production of monocyte chemoattractant protein-1 by malignant fibrous histiocytoma: relation to the origin of histiocyte-like cells. *Experimental and Molecular Pathology*, 1991, 54(1):61-71.
 40. Tungekar MF; Heryet A; Gatter KC. The L1 antigen and squamous metaplasia in the bladder. *Histopathology*, 1991, 19(3):245-50.
 41. Cattoretti G; Villa A; Vezzoni P; Giardini R; Lombardi L; Rilke F. Malignant histiocytosis. A phenotypic and genotypic investigation. *American Journal of Pathology*, 1990, 136(5):1009-19.
 42. Chilosi M; Mombello A; Montagna L; Benedetti A; Lestani M; Semenzato G; Menestrina F. Multimarker immunohistochemical staining of calgranulins, chloroacetate esterase, and S100 for simultaneous demonstration of inflammatory cells on paraffin sections. *Journal of Histochemistry and Cytochemistry*, 1990, 38(11):1669-75.



Calprotectin-Monocyte / Macrophage / L1 Protein Ab-1 (Clone MAC 387)

Mouse Monoclonal Antibody

Cat. #MS-148-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Purified Ab with BSA and Azide)**Cat. #MS-148-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml)** (Purified Ab without BSA and Azide)**Cat. #MS-148-R7 (7.0ml)** (Ready-to-Use for Immunohistochemistry)**Please note this data sheet has been changed effective December 6, 2011**

43. Cope EM; Dilly SA. Kupffer cell numbers during human development. *Clinical and Experimental Immunology*, 1990, 81(3):485-8.
44. Horny HP; Campbell M; Steinke B; Kaiserling E. Acute myeloid leukemia: immunohistologic findings in paraffin-embedded bone marrow biopsy specimens. *Human Pathology*, 1990, 21(6):648-55.
45. Hsu SM; Xie SS; Hsu PL. Cultured Reed-Sternberg cells HDLM-1 and KM-H2 can be induced to become histiocyte-like cells. H-RS cells are not derived from lymphocytes. *American Journal of Pathology*, 1990, 137(2):353-67.
46. Leong AS; Wannakrairot P; Jose J; Milios J. Bacillus Calmette-Guerin-treated superficial bladder cancer: correlation of morphology with immunophenotyping. *Journal of Pathology*, 1990, 162(1):35-41.
47. Pileri S; Falini B; Delsol G; Stein H; Baglioni P; Poggi S; Martelli MF; Rivano MT; Mason DY; Stansfeld AG. Lymphohistiocytic T-cell lymphoma (anaplastic large cell lymphoma CD30+/Ki-1 + with a high content of reactive histiocytes). *Histopathology*, 1990 Apr, 16(4):383-91.

