

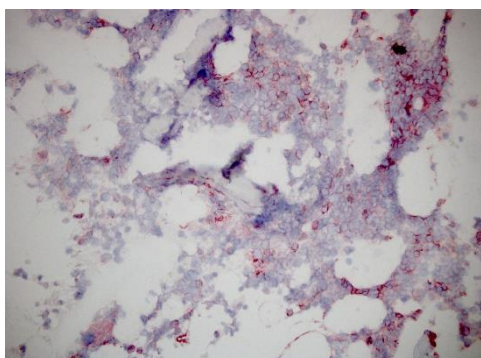
**CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET**

|                       |                             |                      |            |
|-----------------------|-----------------------------|----------------------|------------|
| <b>Product name</b>   | CD166, Human, clone AZN-L50 | <b>Expiry date</b>   | -          |
| <b>Catalog number</b> | HM2002-500UG                | <b>Amount</b>        | 500 µg     |
| <b>Lot number</b>     | -                           | <b>Concentration</b> | >0.5 mg/ml |
| <b>Volume</b>         | -                           | <b>Conjugate</b>     | None       |
| <b>Formulation</b>    | 0.2 µm filtered in PBS      | <b>Purification</b>  | Protein G  |
| <b>Host Species</b>   | Mouse IgG2a                 |                      |            |
| <b>Endotoxin</b>      | <24 EU/mg                   |                      |            |
| <b>Storage</b>        | 4°C                         |                      |            |

**Application notes**

|             | IHC-F | IHC-P | IF | FC      | FS    | IA | IP | W     |
|-------------|-------|-------|----|---------|-------|----|----|-------|
| Reference # | 5     | 2,6   | 1  | 1,2,4-6 | 1,3,4 |    | 4  | 1,2,6 |
| Yes         | •     | •     | •  | •       | •     |    | •  | •     |
| No          |       |       |    |         |       |    |    |       |
| N.D.        |       |       |    |         |       | •  |    |       |

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot



IHC: Human CD166 (ALCAM) in bone marrow cells. Staining with monoclonal antibody AZN-L50.

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

- IHC-F: Tissue sections were fixed in acetone
- FC: Antibody AZN-L50 stains the extracellular domain of ALCAM. K562 cells (2x10<sup>5</sup>) were stained with 4 µg/ml antibody.
- FS: Antibody AZN-L50 functions as a blocking antibody for homotypic ALCAM-ALCAM interaction.
- IF: Antibody AZN-L50 (4 µg/ml) was used on methanol/acetone fixed monolayers of cells grown on a glass surface.
- IP: Radioactive labelled KG1a cells were lysed and precipitated with 1 µg of antibody coupled to Protein G Sepharose 4 Fast Flow beads.
- IHC-P: Tissue sections were pretreated by heating in a rice steamer in citrate buffer for 10 minutes for antigen retrieval. Tissue sections were blocked with normal horse serum.
- W: A non-reduced sample treatment and 6,5 % SDS-Page was used. The mature protein has a band size of 100 kDa and the soluble form 30 kDa.

**General Information**
**Description**

The monoclonal antibody AZN-L50 recognizes activated leukocyte cell adhesion molecule (ALCAM), a member of the immunoglobulin superfamily and has a characteristic VVC2C2C2 domain structure. ALCAM is a type I transmembrane protein of 100 kDa with five extracellular immunoglobulin-like domains and a short cytoplasmic tail. ALCAM mediates homotypic ALCAM-ALCAM interactions and heterotypic interactions with the T-cell antigen CD6. Homotypic interactions are involved in the development and maintenance of tissue architecture and tumor progression. Heterotypic interactions initiate and stabilize T-cell-dendritic interactions affecting T-cell activation. ALCAM is secreted as a NH<sub>2</sub>-terminal fragment of 30 kD. Soluble ALCAM (sALCAM) induces divergent biological signals and responses.

ALCAM shows a characteristic, temporal and spatial distribution in development of a wide variety of tissues and cells in health and disease. ALCAM is expressed on a wide variety of cells, within the leukocyte population its expression is particularly high on dendritic cells. ALCAM is involved in various physiological processes including hematopoiesis, thymus development, the immune response, neurite extension, neural cell migration, embryogenesis, neurogenesis, angiogenesis, osteogenesis and is a marker for pluripotent mesenchymal stem cells. The monoclonal antibody AZN-L50 completely blocks homophilic ALCAM-ALCAM interaction.

|                              |   |
|------------------------------|---|
| <b>Immunogen</b>             | CD166 expressing K562 cells   |
| <b>Aliases</b>               | Activated leukocyte cell adhesion molecule, ALCAM, CD166.   |
| <b>References</b>            | <ol style="list-style-type: none"><li>1. Kempen van, L et al; Molecular basis for the homophilic activated leukocyte cell adhesion molecule (ALCAM)-ALCAM interaction. <i>J Biol Chem</i> 2001, <i>276</i>: 25783</li><li>2. Lunter, P et al; Activated leukocyte cell adhesion molecule (ALCAM/CD166/MEMD), a novel actor in invasive growth, controls matrix metalloproteinase activity. <i>Cancer Res</i> 2005, <i>65</i>: 8801</li><li>3. Zimmerman, A et al; Long-term engagement of CD6 and ALCAM is essential for T-cell proliferation induced by dendritic cells. <i>Blood</i> 2006, <i>107</i>: 3212</li><li>4. Riet te, J et al; Distinct kinetic and mechanical properties govern ALCAM-mediated interactions as shown by single-molecule force spectroscopy. <i>J Cell Sci</i> 2007, <i>120</i>: 3965</li><li>5. Bladergroen, B et al; Spatially separated distribution and highly flexible expression of adhesion molecules facilitates dynamic hematopoiesis. <i>J Med Sci</i> 2007, <i>7</i>:1239</li><li>6. Kilsdonk van, J et al; Attenuation of melanoma invasion by a secreted variant of activated leukocyte cell adhesion molecule. <i>Cancer Res</i> 2008, <i>68</i>:3671</li></ol> |
| <b>Storage&amp;stability</b> | Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.   |
| <b>Precautions</b>           | For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.  |

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We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC  
Brenda Teunissen

Date  
05/11/2019

Do you have any questions or comments regarding this product? Please contact us via [support@hycultbiotech.com](mailto:support@hycultbiotech.com).