

**CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET**

|                       |  |                      |       |
|-----------------------|--|----------------------|-------|
| <b>Product name</b>   | CRAMP, Mouse, Peptide                                |                      |       |
| <b>Catalog number</b> | HC1106   |                      |       |
| <b>Lot number</b>     | -  | <b>Expiry date</b>   | -     |
| <b>Volume</b>         | Reconstitute with distilled/de-ionized water or DMSO | <b>Activity</b>      | N.A.  |
| <b>Formulation</b>    | Lyophilized in PBS                                   | <b>Amount</b>        | 50 µg |
| <b>Host Species</b>   | Mouse, peptide                                       | <b>Concentration</b> | N.A.  |
| <b>Endotoxin</b>      | N.A.   | <b>Purification</b>  | N.A.  |
| <b>Storage</b>        | 4°C  | <b>Purity</b>        | >95%  |

**Application notes**

|             | IHC-F | IHC-P | IF | FC | FS | IA | IP | W |
|-------------|-------|-------|----|----|----|----|----|---|
| Reference # |       |       |    |    |    |    |    |   |
| 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



W: 200 ng was loaded of the CRAMP peptide. The experiment is performed under reducing conditions. A band of ~3 kDa is seen.

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. For functional studies, in vitro dilutions have to be optimized in user's experimental setting.

- FS: mCRAMP inhibits E.coli dH5α growth. At a concentration of 20 µg/ml complete inhibition is seen.

**General Information**
**Description**

Cathelicidins are a family of antimicrobial proteins predominantly found in the peroxidase-negative granules of neutrophils. The cathelicidins are synthesized as preproteins. Within the neutrophils, they are stored in granules as inactive preforms after removal of the signal peptide. The biologic active domains of the cathelicidins reside in the C-terminus. The C-terminal antimicrobial peptides are activated when cleaved from the preforms of the cathelicidins by serine proteases from azurophilic granules. Cramp (Cathelin-Related Anti-Microbial Peptide) is the mouse analogue of human LL-37 peptide, which is the antibacterial C-terminus of hCAP-18 (human cathelicidin). CRAMP forms an amphipathic α-helix similar to other antimicrobial peptides. Cramp is a potent antibiotic against Gram-negative bacteria by inhibiting growth of a variety of bacterial strains and by permeabilizing the inner membrane of E.coli directly. Abundant expression of Cramp is found in myeloid precursors and neutrophils. Cramp represents the first antibiotic

peptide found in cells of myeloid lineage in the mouse. Inflammatory cells in the mouse can thus use a non-oxidative mechanism for microbial killing. The protein sequence of CRAMP is GLLRKGGEKIGEKLLKIGQKIKNFFQKLVPQPEQ.

|                              |  |
|------------------------------|--|
| <b>Aliases</b>               | Mouse LL-37, Cathelin-Related Antimicrobial Peptide.   |
| <b>Storage&amp;stability</b> | Lyophilized product should be stored at 4°C. Store stock solution in aliquots at -20°C. Repeated freeze and thaw cycles will cause loss of activity. Lyophilized product is stable for at least one year, reconstituted and stored at -20°C, the product is stable for 6 months.   |
| <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  
Robbert Zwinkels

Date  
08/10/2018

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