

## Product Datasheet

### HDEL Antibody: Biotin (orb147721)

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Description</b>         | Mouse monoclonal to HDEL (Biotin). HSP 70 family comprises four highly conserved proteins, HSP 70, HSC 70, GRP 75 and GRP 78, which serve a variety of roles. They act as molecular chaperones, facilitating the assembly of multi-protein complexes; participate in the translocation of polypeptides across cell membranes and to the nucleus; and aid in the proper folding of nascent polypeptide chains. GRP 78 is localized in the endoplasmic reticulum (ER), where it receives imported secretory proteins and is involved in the folding and translocation of nascent peptide chains. Sorting of these proteins is dependent on a C-terminal tetrapeptide signal, usually KDEL in animal cells, and HDEL in <i>S. cerevisiae</i> . The 2E7 clone recognizes the C-terminal peptide HDEL, a common version of the endoplasmic reticulum retention signal found in yeast, plant, nematode and other ER proteins. 2E7 specifically stains HDEL proteins in barnyard grass, beet, cotton, mung bean, sorghum and wheat.. |
| <b>Species/Host</b>        | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Reactivity</b>          | Drosophila, Plant, Saccharomyces, Yeast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Conjugation</b>         | Biotin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Tested Applications</b> | ELISA, ICC, IF, IHC, WB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Immunogen</b>           | Raised against a synthetic HDEL peptide corresponding to the C-terminus of yeast Bip                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Target</b>              | HDEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Preservatives</b>       | 136.36mM Ethanolamine, and 9.55mM Sodium Bicarbonate in 95.45% PBS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Concentration</b>       | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Storage</b>             | Conjugated antibodies should be stored according to the product label                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Note</b>                | For research use only                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

#### Biorbyt Ltd.

7 Signet Court, Swann's Road,  
Cambridge, CB5 8LA, United Kingdom  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+44 \(0\) 1223 859-353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)6518558)

#### Biorbyt LLC.

68 TW Alexander Drive,  
Durham, NC, 27713, United States  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+1 \(415\) 906-5211](tel:+1(415)9065211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)6518558)

|                          |                                                                                                                                                                                                                  |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Application notes</b> | 1 µg/ml of SMC-175 was sufficient for detection of HDEL-containing proteins in 10 µg of <i>S. cerevisiae</i> lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody. |
| <b>Isotype</b>           | IgG2b                                                                                                                                                                                                            |
| <b>Clonality</b>         | Monoclonal                                                                                                                                                                                                       |
| <b>Clone Number</b>      | 20000000                                                                                                                                                                                                         |
| <b>MW</b>                | 78kDa                                                                                                                                                                                                            |
| <b>Dilution Range</b>    | WB (1:1000), ICC/IF (1:100)                                                                                                                                                                                      |
| <b>Expiration Date</b>   | 12 months from date of receipt.                                                                                                                                                                                  |

**Biorbyt Ltd.**

7 Signet Court, Swann's Road,  
Cambridge, CB5 8LA, United Kingdom  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+44 \(0\) 1223 859-353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)6518558)

**Biorbyt LLC.**

68 TW Alexander Drive,  
Durham, NC, 27713, United States  
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+1 \(415\) 906-5211](tel:+1(415)9065211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)6518558)