

## Product Information

### Anti-HOXC8

produced in rabbit, affinity isolated antibody

Catalog Number **H1791**

#### Product Description

Anti-HOXC8 is produced in rabbit using as immunogen a synthetic peptide corresponding to amino acids 96-110 of human HOXC8 (Gene ID: 3224) conjugated to KLH. The corresponding sequence is identical in mouse and rat. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-HOXC8 recognizes human HOXC8 (also known as Hox-3A). The antibody may be used in several immunochemical techniques including immunoblotting (~34 kDa). Detection of the HOXC8 band by immunoblotting is specifically inhibited with the immunizing peptide.

Hox genes are evolutionarily conserved transcription factors which act to control important development pathways involved in morphogenesis of the embryo. In vertebrates, there are 39 HOX genes that are organized into four clusters (HOXA–HOXD), located on different chromosomes (7p15, 17q21.2, 12q13, and 2q31). Each cluster contains 9–11 member genes encoding relatively small gene products containing a highly conserved 60-amino-acid region (the homeobox), with DNA-binding activity that contributes to their activity as transcription factors.<sup>1</sup> One of the major functions of Hox genes seems to be the formation of the body plan during embryonic development.<sup>2</sup> In addition to roles in normal development, altered homeobox gene function or expression is implicated in the development of cancers, such as leukemias or neoplasms of the breast, prostate, kidney, colon, skin and brain.<sup>3,4</sup> HOXC8 is expressed in mouse hematopoietic organs such as fetal liver and adult bone marrow. HOXC8-null mutant mice show abnormalities in hematopoietic progenitor cells.<sup>5</sup>

#### Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~1.0 mg/mL

#### Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

#### Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots at –20 °C. Repeated freezing and thawing, or storage in “frost-free” freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

#### Product Profile

**Immunoblotting:** a working antibody concentration of 1-2 µg/mL is recommended using extracts of HEK-293T cells over expressing human HOXC8.

**Immunoprecipitation:** a working antibody amount of 2.5-5 µg is recommended using lysates of HEK-293T cells over expressing human HOXC8.

**Note:** In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

#### References

1. Lemons, D., McGinnis, W., *Science*, **313**, 1918–1922 (2006).
2. Akam, M., *Philos. Trans. R. Soc. Lond. B Biol. Sci.*, **349**, 313–319 (1995).
3. Stuart, E.T., et al., *Adv. Genet.*, **33**, 255–274 (1995).
4. Cillo, C., et al., *Exp. Cell Res.*, **248**, 1–9 (1999).
5. Shimamoto, T., et al., *J. Exp. Zool.*, **283**, 186-193 (1999).

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