

## Product Information

### Anti-ERGIC-53/p58–Cy3™

produced in rabbit, affinity isolated antibody

Product Number **E6782**

#### Product Description

Anti-ERGIC-53/p58 is produced in rabbit using as immunogen a synthetic peptide corresponding to a fragment of rat p58/ERGIC-53/LMAN1 conjugated to KLH. The corresponding sequence is identical in mouse and human. Anti-ERGIC-53/p58, Cy3™ conjugate is prepared by conjugation of the affinity purified antibody to Cy3. The conjugate is purified by gel filtration to remove unbound Cy3 fluorophore.

Anti-ERGIC-53/p58–Cy3 recognizes human ERGIC-53/p58 (not tested in other species). The product may be used for the detection and localization of ERGIC-53/p58 by direct immunofluorescence staining.

ERGIC-53 is a type I membrane marker protein associated with the ER-Golgi intermediate compartment (ERGIC).<sup>1</sup> Its rat homolog is known as p58.<sup>2,3</sup> ERGIC, a dynamic membrane system composed of a constant average number of tubulo-vesicular clusters in the vicinity of ER exit sites, mediates protein transport from ER to Golgi.<sup>4,5</sup>

ERGIC-53 contains a cytosolic diphenylalanine motif that interacts with COP II vesicle coats, and a C-terminal di-lysine ER retrieval motif that interacts with COP I vesicle coats, leading to constitutive recycling in the early secretory pathway.<sup>6</sup> ERGIC-53 is a mannose-specific lectin required for efficient exit of some glycoproteins from the ER including cathepsin C, cathepsin Z, and blood coagulation factors V and VIII.<sup>5</sup> Mutations in ERGIC-53 are responsible for combined deficiency of coagulation factors V and VIII, an autosomal recessive bleeding disorder.<sup>7</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: 1.5–3.0 mg/mL

Molar Ratio (F/P): 3–9

#### Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the 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 at –20 °C in working aliquots. Protect from prolonged exposure to light. 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 dilution samples should be discarded if not used within 12 hours.

#### Product Profile

Direct immunofluorescence: a working concentration of 0.5–1.0 µg/mL is recommended using human HeLa cells.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration

#### References

1. Schweizer, A. et al., *J. Cell Biol.*, **107**, 1643-1653 (1988).
2. Saraste, J. et al., *J. Cell Biol.*, **105**, 2021-2029 (1987).
3. Lahtinen, U. et al., *J. Biol. Chem.*, **271**, 4031-4037 (1996).
4. Schweizer, A. et al., *J. Cell Biol.*, **113**, 45-54 (1991).
5. Breuza, L. et al., *J. Biol. Chem.*, **279**, 47242 - 47253 (2004).
6. Klumperman, J. et al., *J. Cell Sci.*, **111**, 3411-3425 (1998).
7. Nichols, W.C. et al., *Cell*, **93**, 61-70 (1998).

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