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Product Information

Anti-dEGF Receptor, Extracellular Domain antibody
Mouse monoclonal, clone C-273
purified from hybridoma cell culture

Product Number **E2906**

Product Description

Anti-dEGF Receptor, Extracellular Domain antibody, Mouse monoclonal (mouse IgG1 isotype) is derived from the hybridoma C-273 produced by the fusion of mouse myeloma cells (NS1 cells) and splenocytes from BALB/c mice immunized with a recombinant protein encoding at the extracellular portion of *Drosophila* EGFR. The isotype is determined using a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2.

Anti-dEGF Receptor, Extracellular Domain antibody, Mouse monoclonal recognizes *Drosophila* Epidermal Growth Factor Receptor (EGFR). The antibody may be used in ELISA, immunoblotting, and immunohistochemistry.

The *Drosophila* EGF receptor, also known as Torpedo or DER, is involved in many developmental processes such as: egg polarity, cell identity in the ventral ectoderm, neurogenesis, development of the Malpighian tubules, and larval eye and wing development. This receptor has four ligands: Gurken, Spitz (the principle ligand), Vein, and Argos. In addition, two accessory proteins modulate its signaling: Rhomboid and Star.[1-3] The downstream signaling molecules that are activated by the *Drosophila* EGF receptor include: Shc, DRK (a homolog of mammalian Grb2), a guanine nucleotide exchange factor (SOS) activated by DRK, and downstream targets including orthologs of Ras, Raf, and Rolled (MAP Kinase). These latter proteins are members of the RAS-RAF-MAPK pathway that can transmit signals to the cytoskeleton, and as a consequence change the cell shape; and/or to the nucleus (resulting in gene activation).[1-3] EGF receptor activity is essential for establishing all cell fates within the developing eye.[4-5]

Reagent

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

Antibody concentration: ~1.2 mg/mL

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 in working aliquots. 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

Immunoblotting: a working concentration of 0.25–0.5 μg/mL is determined using a recombinant protein encoding amino acids 299-359 of the *Drosophila* EGFR extracellular domain.

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

References

1. Shilo, B.Z., *Development*, **132**, 4017-4027 (2005).
2. Hidalgo, A., *Trends Neuro*., **25**, 365-370 (2002).
3. Vaas, M.G., and Rebay, I., *Dev. Dyn*., **229**, 162-175 (2004).
4. Spencer, S.A., et al., Development, **125**, 4777-4790 (1998).
5. Freeman, M., *Cell,* **87**, 651-660 (1996).

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