Product Information

Anti-ELKS antibody, Mouse monoclonal

Clone ELKS-30, purified from hybridoma cell culture

E4531

Product Description

Monoclonal Anti-ELKS (mouse IgG2a isotype) is derived from the hybridoma ELKS-30 produced by the fusion of mouse myeloma cells (NS1 cells) and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to a fragment of human ELKS. The isotype is determined using a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Cat. Nos. E4531, ISO2.

Monoclonal Anti-ELKS recognizes human, bovine, rat, mouse, and chicken ELKS. The antibody may be used in ELISA, immunoprecipitation, immunocytochemistry, and immunoblotting (~120 kDa).

ELKS, also known as KIAA1081, is an essential regulatory subunit of the IKK complex that controls signaling via NF-κB. It was named ELKS since 44.1% of the sequence is composed of glutamic acid (E), leucine (L), lysine (K), and serine (S) residues. The protein contains 948 amino acids with nine α-helical coiled-coil domains including periodic heptad repeats that predict dimer formation. Its highest expression is in heart, placenta, lung, brain, thyroid, and testis.[1]

Silencing ELKS expression by RNA interference, blocked induced expression of NF-κB target genes, including the NF-κB inhibitor, IκBα, and proinflammatory genes such as cyclooxygenase-2 (COX2) and interleukin-8. ELKS was found also to be a part of DNA damage-induced IKK activation, acting downstream of cytosolic ATM-IKK complex formation.

Furthermore, in genotoxic stress induction, ELKS was associated with ATM.[2-3]

Reagent

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

Antibody Concentration: ~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 antibody concentration of 0.5-1 µg/mL is recommended using HeLa cell extract.

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

References

1. Nakata, T., et al., Genes Chromosomes Cancer, 25, 97-103 (1999).
2. Sigala, J.L.D., et al., Science, 304, 1963-1967 (2004).
3. Wu, Z., et al., Science, 311, 1141-1146 (2006).

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