Revision 3

Store at -20C

#63670

G4S Linker (E7O2V) Rabbit mAb (BSA and Azide Free)

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	Source/Isotype:
FC-L, ELISA	H All	Endogenous	Rabbit IgG

Product Usage Information

This product is the carrier free version of product #71645. All data were generated using the same antibody clone in the standard formulation which contains BSA and glycerol.

This formulation is ideal for use with technologies requiring specialized or custom antibody labeling, including fluorophores, metals, lanthanides, and oligonucleotides. It is not recommended for ChIP, ChIP-seq, CUT&RUN or CUT&Tag assays. If you require a carrier free formulation for chromatin profiling, please contact us. Optimal dilutions/concentrations should be determined by the end user.

BSA and Azide Free antibodies are quality control tested by size exclusion chromatography (SEC) to determine antibody integrity.

Formulation

Supplied in 1X PBS (10 mM Na_2HPO_4, 3 mM KCl, 2 mM KH_2PO_4, and 140 mM NaCl (pH 7.8)). BSA and Azide Free.

For standard formulation of this product see product #71645

Storage

Store at -20°C. *This product will freeze at -20°C so it is recommended to aliquot into single-use vials to avoid multiple freeze/thaw cycles.* A slight precipitate may be present and can be dissolved by gently vortexing. This will not interfere with antibody performance.

Specificity/Sensitivity

G4S Linker (E7O2V) Rabbit mAb (BSA and Azide Free) recognizes exogenously expressed levels of scFv-based CARs containing a G4S linker.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide containing three Gly4Ser repeats.

Description

This Cell Signaling Technology antibody is tested in-house for indirect flow cytometric analysis in human cells and is expected to react with cell surface expressed CARs of varying specificity, which contain a G4S linker within the scFv of the extracellular domain.

Background

The poly-Glycine-Serine (G4S) linker is a type of flexible, unstructured synthetic peptide linker sequence often leveraged to connect the variable heavy (VH) domain and variable light (VL) domain of single-chain variable fragments (scFvs) and chimeric antigen receptors (CARs) that utilize an extracellular domain scFv for target antigen recognition. The linker itself consists of a core pentapeptide sequence, Gly-Gly-Gly-Gly-Ser, that is repeated and commonly found as either a 15-mer $(G4S)_3$ or 20-mer $(G4S)_4$ within scFv-based CARs and scFv fragments. The linker sequence length plays a role in controlling scFv stability and the noncovalent association between the VH and VL domains (1,2).

Background References

1. Huston, J.S. et al. (1988) *Proc Natl Acad Sci USA* 85, 5879-83.
2. Chen, X. et al. (2013) *Adv Drug Deliv Rev* 65, 1357-69.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Applications Key

FC-L: Flow Cytometry (Live) **ELISA:** ELISA

Cross-Reactivity Key

H: Human **All:** All Species Expected

Trademarks and Patents

Limited Uses

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