

Anti-A. aeolicus BPL/BioID2 [SS QD1]

Catalogue number: 153486

Sub-type:

Images:

Contributor

Inventor:

Institute: A*STAR Accelerate Technologies Pte Ltd

Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: Anti-A. aeolicus BPL/BioID2 [SS QD1]

Alternate name: BPL antibody, BioID2 antibody, Anti-BPL, Anti-BioID

Class: Monoclonal

Conjugate: Unconjugated

Description: Monoclonal antibody used in the BioID method to detect protein-protein interactions. Background and Research Application BioID2 is a second-generation biotin protein ligase (BPL) that can be used to identify protein-protein interactions. In the BioID method a promiscuous biotin protein ligase (BPL) is fused to a protein of interests and expressed in vivo where it biotinylates proteins in a proximity-dependent manner. The biotinylated proteins can then be affinity purified and identified by mass spectrometry. The original BioID uses a promiscuous BPL from E.coli (BirA R118G), however due to its relatively large size it occasionally hindered proper targeting of the proteins it was fused to. The second generation of the BioID method is based on a BPL from hyper thermophilic bacterium Aquifex aeolicus (A. aeolicus) that was mutated within the conserved biotin binding site (R40G) causing loss of BPL single substrate specificity. The promiscuous A. aeolicus BPL R40G referred to as BioID2 is the smallest known BPL. The smaller BioID2 not only improved targeting of the bait but also proved to be more efficient in biotinylating proximate proteins. The SS QD1 monoclonal antibodies were generated to support the recent developments in the BioID, a method that can be used to detect potential interacting proteins.

Purpose:

Parental cell:

Organism:

Tissue:

Model:

Gender:

Isotype: IgG2 kappa

Reactivity:

Aquifex aeolicus

Selectivity:

Host: Mouse

Immunogen: GST fused to A. aeolicus BPL R40G (BioID2)

Immunogen UNIPROT ID: O66837

Sequence:

Growth properties:

Production details:

Formulation:

Recommended controls: Cells overexpressing A. aeolicus BPL R40G (BioID2) construct

Bacterial resistance:

Selectable markers:

Additional notes:

Target details

Target: BPL R40G

Target alternate names:

Target background: Monoclonal antibody used in the BioID method to detect protein-protein interactions. Background and Research Application BioID2 is a second-generation biotin protein ligase (BPL) that can be used to identify protein-protein interactions. In the BioID method a promiscuous biotin protein ligase (BPL) is fused to a protein of interests and expressed in vivo where it biotinylates proteins in a proximity-dependent manner. The biotinylated proteins can then be affinity purified and identified by mass spectrometry. The original BioID uses a promiscuous BPL from E.coli (BirA R118G), however due to its relatively large size it occasionally hindered proper targeting of the proteins it was fused to. The second generation of the BioID method is based on a BPL from hyper thermophilic bacterium Aquifex aeolicus (A. aeolicus) that was mutated within the conserved biotin binding site (R40G) causing loss of BPL single substrate specificity. The promiscuous A. aeolicus BPL R40G referred to as BioID2 is the smallest known BPL. The smaller BioID2 not only improved targeting of the bait but also proved to be more efficient in biotinylating proximate proteins. The SS QD1 monoclonal antibodies were generated to support the recent developments in the BioID, a method that can be used to detect potential interacting proteins.

Molecular weight: 27 kDa

Ic50:

Applications

Application: IF ; WB

Application notes:

Handling

Format: Liquid

Concentration: 1 mg/ml

Passage number:

Growth medium:

Temperature:

Atmosphere:

Volume:

Storage medium:

Storage buffer: PBS with 0.02% azide

Storage conditions: -15° C to -25° C

Shipping conditions: Shipping at 4° C

Related tools

Related tools:

References

References:

CancerTools.org