

## DESCRIPTION

|                                       |                                                                                                                         |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <b>Target:</b>                        | TTYH1                                                                                                                   |
| <b>Target aliases:</b>                | Tweety Family Member 1, Volume-Regulated Anion Channel Subunit TTYH1, Protein Tweety Homolog 1, HTTY1, Tweety Homolog 1 |
| <b>Fc isotype:</b>                    | IgG2a                                                                                                                   |
| <b>Membrane proteome specificity:</b> | Monospecific for 6,000 membrane proteins tested                                                                         |
| <b>Species reactivity:</b>            | Human (Others untested)                                                                                                 |
| <b>Extracellular epitope:</b>         | Yes                                                                                                                     |
| <b>Fc modifications:</b>              | C-terminal Avitag <sup>1</sup> , disabled Fc- $\gamma$ receptor binding <sup>2</sup>                                    |
| <b>Source:</b>                        | Recombinant CHO expression; purified by Protein A chromatography                                                        |
| <b>Formulation:</b>                   | Endotoxin Free PBS pH 7.4, sterile-filtered                                                                             |
| <b>Concentration:</b>                 | 1 mg/ml                                                                                                                 |

1. A peptide tag that can be biotinylated in vitro using the biotin ligase enzyme (BirA).
2. Mutated Fc- $\gamma$  receptor binding site to minimize non-specific antibody binding.

## TTYH1 TARGET INFORMATION

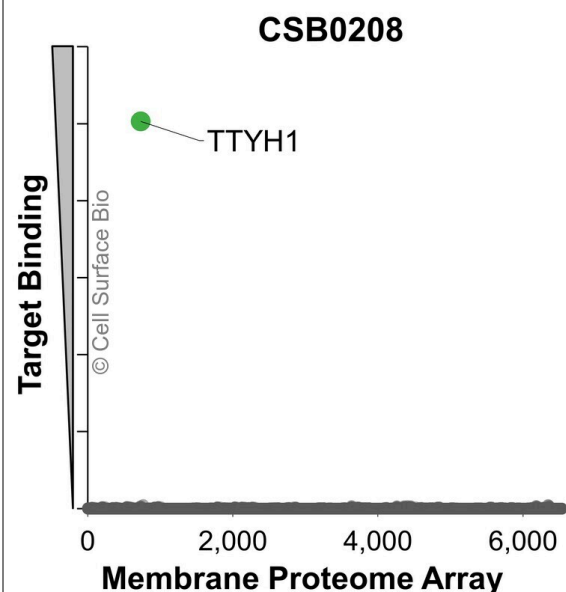
Tweety family member 1 (TTYH1) is a member of the tweety family of proteins, which are predicted to function as calcium-activated chloride channels. TTYH1 is a multi-pass transmembrane protein localized primarily to the plasma membrane and intracellular compartments. It is highly expressed in the central nervous system, particularly in neurons, and is implicated in chloride ion transport, although its precise physiological role remains incompletely understood. Expression patterns suggest involvement in neural development or signaling, but no definitive biological function has been fully established. (NCBI Gene: 57348, UniProtKB/Swiss-Prot: Q9H313) Other names: Tweety Family Member 1, Volume-Regulated Anion Channel Subunit TTYH1, Protein Tweety Homolog 1, HTTY1, Tweety Homolog 1

## SHIPPING AND STORAGE

|                                 |                                                                                                  |
|---------------------------------|--------------------------------------------------------------------------------------------------|
| <b>Shipping:</b>                | Shipped at ambient temperature. Store at 4°C.                                                    |
| <b>Stability &amp; Storage:</b> | Stable for 12 months from date of receipt when stored at 4°C. Avoid repeated freeze-thaw cycles. |

## VALIDATION DATA

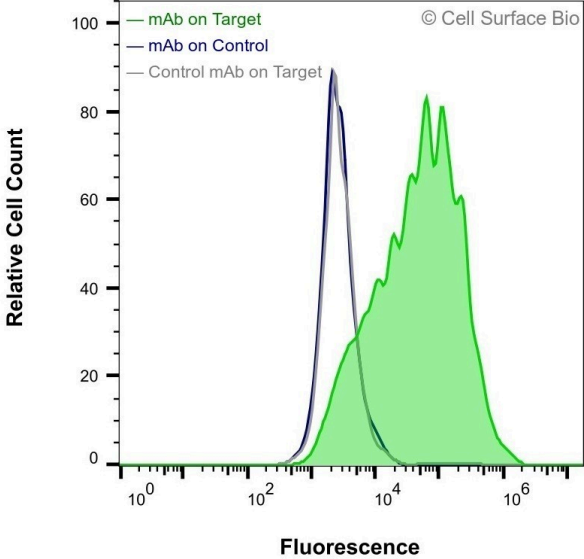
### Membrane Proteome Specificity



The specificity of TTYH1 Monoclonal Antibody (CSB0208) was tested on the Membrane Proteome Array™ and shown to be specific for TTYH1.

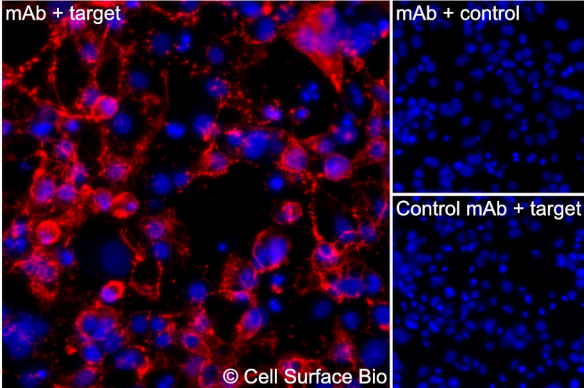
The Membrane Proteome Array™ contains 6,000 different human membrane proteins, each expressed in unfixed avian cells to ensure native conformation and post-translational modifications. The Membrane Proteome Array™ represents the industry standard for determining the binding specificity of antibodies and other protein ligands.

| Applications                  | Conditions            | Recommended concentration |
|-------------------------------|-----------------------|---------------------------|
| Flow Cytometry, Extracellular | Live, Unpermeabilized | 1 µg/ml                   |



HEK-293F cells transiently transfected with TTYH1 were stained with TTYH1 Monoclonal Antibody (CSB0208)(green) or isotype control antibody (gray), followed by AlexaFluor 647- conjugated anti- IgG secondary antibody. HEK-293F cells transiently transfected with an empty control vector were also stained with TTYH1 Monoclonal Antibody (CSB0208)(blue).

| Applications                      | Conditions                | Recommended concentration |
|-----------------------------------|---------------------------|---------------------------|
| Immunofluorescence, Extracellular | Fixed 4% paraformaldehyde | 1 µg/ml                   |



(Left) COS-7 cells transiently transfected TTYH1 were stained with TTYH1 Monoclonal Antibody (CSB0208) followed by AlexaFluor 647 anti- IgG secondary antibody (red) and DAPI (blue). (Top right) COS-7 cells transiently transfected with an empty control vector stained with TTYH1 Monoclonal Antibody. (Bottom right) Isotype control: COS-7 cells transfected with TTYH1 and stained with control MAb.

**Applications**

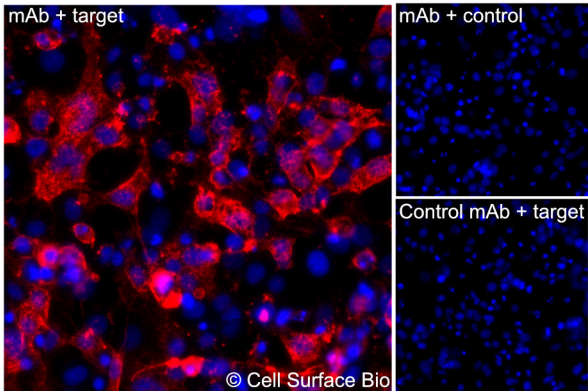
Immunofluorescence, Intracellular

**Conditions**

Fixed 4% paraformaldehyde,  
Permeabilized 0.1% Triton X-100

**Recommended concentration**

1 µg/ml



(Left) COS-7 cells transiently transfected TTYH1 were permeabilized and stained with TTYH1 Monoclonal Antibody (CSB0208) followed by AlexaFluor 647 anti- IgG secondary antibody (red) and DAPI (blue). (Top right) COS-7 cells transiently transfected with an empty control vector stained with TTYH1 Monoclonal Antibody. (Bottom right) Isotype control: COS-7 cells transfected with {{target}} and stained with control MAb.