
Product Data Sheet

Product Name: Ustekinumab (Anti-Human IL-12/IL-23, Human Antibody)

Cat. No.: GC34213

Chemical Properties

Cas. No. 815610-63-0

SMILES [Ustekinumab]

Formula M.Wt 145625.97

Solubility Soluble in DMSO Storage Store at -80°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure **Protocol****Cell experiment:**

HUVECs are grown on calibrated glass coverslips to a confluency of 80%. Subsequently, cells are incubated with 200 µg/mL Ustekinumab AlexaFluor488 and Briakinumab AlexaFluor594 for 20 min at 37°C, pH 7.3, washed three times, and chased in fresh medium for an additional 20 min before fixation. Antibodies are directly labeled. FcRn binding is quality controlled by SPR analysis. Cells are then counterstained with anti-FcRn monoclonal antibody DVN22, followed by anti-mouse secondary antibodies conjugated to AlexaFluor647. Imaging is performed on a Leica SP8 confocal microscope[2].

Caution: Product has not been fully validated for medical applications. For research use only.

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References:

- [1]. Montepaone M, et al. Profile of ustekinumab and its potential in the treatment of active psoriatic arthritis. Open Access Rheumatol. 2014 Feb 20;6:7-13.
- [2]. Schoch A, et al. Charge-mediated influence of the antibody variable domain on FcRn-dependent pharmacokinetics. Proc Natl Acad Sci U S A. 2015 May 12;112(19):5997-6002.

Background

Ustekinumab (Stelara, CNTO 1275) is an anti-IL-12/IL-23 IgG1k human monoclonal antibody used to treat psoriasis. MW=145.6 kDa.

The addition of Ustekinumab (UST) significantly inhibits T follicular helper (TFH) cell differentiation in vitro.[1]

Ustekinumab is generated via recombinant human IL-12 immunization of human Ig (hu-Ig) transgenic mice. Ustekinumab binds to the p40 subunit common to IL-12 and IL-23 and prevents their interaction with the IL-12 receptor β 1 subunit of the IL-12 and IL-23 receptor complexes.[2]

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[1] Anna-Maria Globig, et al. Cell Mol Gastroenterol Hepatol. 2021;11(1):1-12. [2] Jacqueline M Benson, et al. MAbs. Nov-Dec 2011;3(6):535-45.

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