

Human TruStain FcX™ (Fc Receptor Blocking Solution)

Catalog# / Size	422301 / 50 tests 422302 / 200 tests
Regulatory Status	RUO
Other Names	Fc Blocker, FcγR blocker, Fc inhibitor
Description	Human Fc receptors (FcRs) are expressed on a variety of cells, such as monocytes, granulocytes, B cells and dendritic cells. The cells with FcR expression sometimes give false positive or false negative results of immunofluorescent staining due to the FcRs-mediated Ig Fc binding. Human TruStain FcX™ is specially formulated for blocking the FcR-involved unwanted staining without interfering with antibody-mediated specific staining of human cells. Human TruStain FcX™ is compatible with flow cytometric staining with anti-human CD16 (clone 3G8), CD32 (clone FUN-2), and CD64 (clone 10.1) antibodies.

Product Details

Storage & Handling	Store between 2°C and 8°C.
Application	FC - Quality tested ICFC, ICC - Reported in the literature, not verified in house
Recommended Usage	It is recommended to add 5 µl of Human TruStain FcX™ per million cells in 100 µl staining volume, mix and incubate at room temperature for 5-10 minutes prior to staining with antibody of interest. It is not necessary to wash cells between these blocking and immunostaining steps.
Application Notes	This buffer contains specialized human IgG in PBS containing 0.09% sodium azide. It is not recommended to be used for staining human IgG. Handle as biohazard agent.
Application References (PubMed link indicates BioLegend citation)	- de la Cruz J, <i>et al.</i> 2011. <i>J. Immunol.</i> 186:2282. PubMed - Luo L, <i>et al.</i> 2011. <i>Exp Mol Pathol.</i> 91:596. PubMed - Szerlip NJ, <i>et al.</i> 2012. <i>PNAS.</i> 109:3041. PubMed - Bromley SK, <i>et al.</i> 2013. <i>J. Immunol.</i> 190:970. PubMed - Trujillo G, <i>et al.</i> 2013. <i>J. Immunol.</i> 191:848. PubMed - Edin S, <i>et al.</i> 2013. <i>PLoS One.</i> 18:74982. PubMed - Euzebio Alves VT, <i>et al.</i> 2013. <i>Infect Immun.</i> 81:4399. PubMed - Borg ZD, <i>et al.</i> 2014. <i>J. Immunol.</i> 192:189. PubMed - Klingenberg R, <i>et al.</i> 2014. <i>Eur Heart J.</i> PubMed - Lines JL, <i>et al.</i> 2014. <i>Cancer Res.</i> 74:1924. PubMed - Decker D, <i>et al.</i> 2014. <i>Lupus.</i> 23:802. PubMed - Jitschin R, <i>et al.</i> 2014. <i>Blood.</i> 123:2663. PubMed - Anderson ME Jr, <i>et al.</i> 2014. <i>Otolaryngol Head Neck Surg.</i> 150:880. PubMed - Giurisato E, <i>et al.</i> 2014. <i>Mol Biol Cell.</i> 25:1769. PubMed - Shi J, <i>et al.</i> 2014. <i>Blood.</i> 123:4015. PubMed - Kusner LL, <i>et al.</i> 2014. <i>PLoS One.</i> 9:102231. PubMed - Fujisawa D, <i>et al.</i> 2014. <i>J Allergy Clin Immunol.</i> 134:622. PubMed - Bhardwaj N, <i>et al.</i> 2014. <i>J Virol.</i> 88:11108. PubMed - Lieber S, <i>et al.</i> 2014. <i>Mol Pharmacol.</i> 87:162. PubMed - Olagnier D, <i>et al.</i> 2014. <i>PLoS Pathog.</i> 10:1004566. PubMed - Punyadee N, <i>et al.</i> 2015. <i>J Virol.</i> 89:1587. PubMed - Vuong TT, <i>et al.</i> 2015. <i>J Histochem Cytochem.</i> 63:280. PubMed - Klingenberg R, <i>et al.</i> 2015. <i>Eur Heart J.</i> 36:1041. PubMed - Wilkinson-Ryan I, <i>et al.</i> 2015. <i>PLoS One.</i> 10:125851. PubMed
Product Citations	- Palacios-Arreola M, <i>et al.</i> 2017. <i>Sci Rep.</i> 10.1038/s41598-017-10135-1. PubMed - Chen X, <i>et al.</i> 2019. <i>Exp Ther Med.</i> 1:265972222. PubMed - Fisher RC, <i>et al.</i> 2019. <i>Neoplasia.</i> 1.061805556. PubMed - Winkler CW, <i>et al.</i> 2019. <i>J Neuroinflammation.</i> 0.825694444. PubMed - O'Huallachain M, <i>et al.</i> 2020. <i>Commun Biol.</i> 3:213. PubMed - Argüello RJ, <i>et al.</i> 2020. <i>Cell Metab.</i> 32:1063. PubMed - Aguilar EG, <i>et al.</i> 2021. <i>Blood Adv.</i> 5:4219. PubMed - Lambert E, <i>et al.</i> 2022. <i>Acta Neuropathol Commun.</i> 10:4. PubMed - Tocheva AS, <i>et al.</i> 2020. <i>Curr Protoc Immunol.</i> 130:e103. PubMed - Ptacin JL, <i>et al.</i> 2021. <i>Nat Commun.</i> 12:4785. PubMed - Lau D, <i>et al.</i> 2022. <i>Nat Commun.</i> 13:4053. PubMed - Sipe CJ, <i>et al.</i> 2022. <i>Int J Mol Sci.</i> 23:. PubMed
RRID	AB_2818986 (BioLegend Cat. No. 422302)

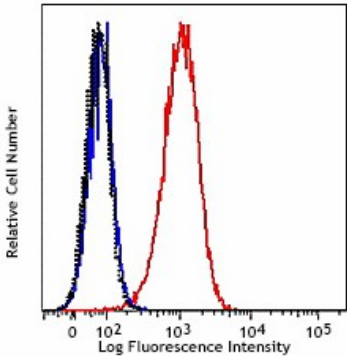
Antigen Details

Molecular Family	Fc Receptors
Gene ID	NA

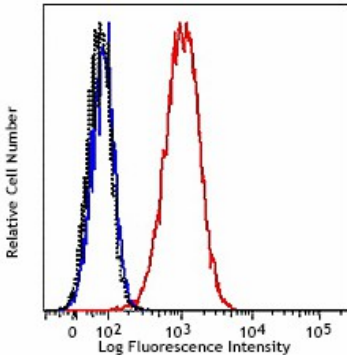
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

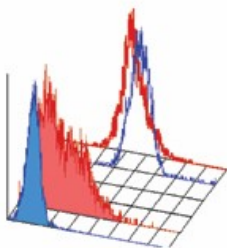
Product Data



Human TruStain FcX™ treated (blue) or non-treated (red) THP-1 cells stained with an irrelevant mouse IgG2a PE mAb (above). Dotted histogram represents unstained cells.



Human TruStain FcX™ treated (blue) or non-treated (red) THP-1 cells stained with an irrelevant rat IgG2b PE mAb (above). Dotted histogram represents unstained cells.



Human TruStain FcX™ treated (filled histograms) or non-treated (open histograms) THP-1 cells stained with anti-human HLA-DR PE (red) or an isotype control (IgG2a PE, blue) mAbs. Note: non-treated cells show false-negative HLA-DR staining due to high binding of mouse IgG2a isotype.

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