

DATASHEET

LUF7960

Product overview

Name LUF7960
Cat No HB8396
Biological description Novel, adenosine A₃AR Affinity-Based Probe (AfBP) which is suitable for click conjugation for use in confocal microscopy, SDS-PAGE and detection of endogenous hA₃AR in flow cytometry.

Binds covalently to the hA₃AR (apparent pK_i values at A₁AR are 7.27 and 8.4 (following a 4h preincubation))

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Biological action Agonist
Purity >98%
Description Novel, clickable Adenosine hA₃AR Affinity-Based Probe (AfBP).

Images

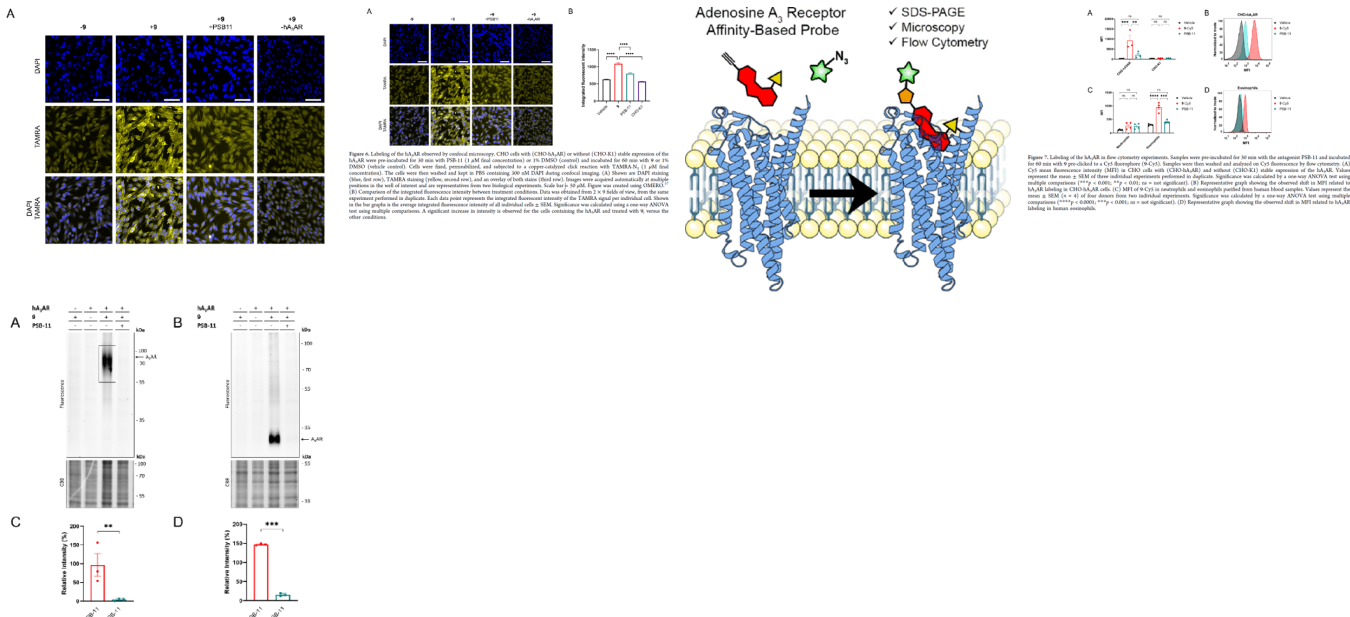


Figure 5. Labeling of the hA₃AR on live CHO cells. CHO cells with or without (first lane) stable expression of the hA₃AR were preincubated for 1 h with antagonist (PSB-11, 1 μM final concentration) at 37 °C, prior to incubation with 9 (50 nM final concentration) for 1 h at 37 °C. After the incubation, the unbound probe was washed away with PBS. Membranes were prepared, brought to a concentration of 1 μg/μL, and subjected to the copper-catalyzed click reaction with Cy5-N₃ (1 μM final concentration). Samples were then denatured with Laemmli buffer (4x), resolved by SDS-PAGE, and imaged using gel fluorescence. Gels were stained by Coomassie Brilliant Blue (CBB) as loading control. (A) Labeling of glycosylated hA₃AR. (B) Labeling of deglycosylated hA₃AR. PNGase was added prior to the addition of click reagents. (C, D) Quantification of the observed signals with and without addition of antagonist (PSB-11). The band intensities were calculated using ImageLab and corrected for the amount of protein measured after CBB staining. The band at 55 kDa of the PageRuler Plus ladder (not shown) was set to 100% for each gel and band intensities were calculated relative to this band. The mean values ± SEM of three individual experiments are shown. Significance was calculated by a two-way ANOVA test using multiple comparisons (**p < 0.001; ***p < 0.01).

Solubility & Handling

Storage instructions
Important

-20 °C

This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

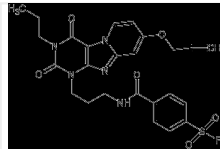
Chemical name

4-[3-(2,4-Dioxo-3-propyl-8-prop-2-ynoxypurino[7,8-a]pyridin-1-yl)propylcarbamoyl]benzenesulfonyl fluoride

Molecular Weight

541.55

Chemical structure



Molecular Formula

C₂₅H₂₄FN₅O₆S

PubChem identifier

168510594

SMILES

CCCN1C(=O)C2=C(N=C3N2C=CC(=C3)OCC#C)N(C1=O)CCCNC(=O)C4=CC=C(C=C4)S(=O)(=O)F

InChiKey

GQJPGXUBGVKCMG-UHFFFAOYSA-N

Licensing details

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References

Development of an Affinity-Based Probe to Profile Endogenous Human Adenosine A(3) Receptor Expression.

Beerkens BLH et al (2023) Journal of medicinal chemistry 66

PubMedID

[37531576](#)