

PRODUCT INFORMATION



iFluor® 405 Azide

Item No. 44065

FW: 660.6
Ex./Em. Max.: 403/427 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Special Conditions: Light sensitive

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

iFluor® 405 azide is supplied as a solid. A stock solution may be made by dissolving the iFluor® 405 azide in the solvent of choice, which should be purged with an inert gas. iFluor® 405 azide is soluble in DMSO.

Description

iFluor® 405 azide is a fluorophore functionalized with azide, which reacts with alkynes, such as dibenzocyclooctyne (DBCO), to form a stable conjugate. It displays excitation/emission maxima of 403/427 nm, respectively. iFluor® 405 azide can be used for labeling alkyne-modified biological molecules for fluorescence imaging and other fluorescence-based biological applications.

Sample Experimental Protocol

Antibody-Oligo Conjugation: Antibody Activation with DBCO

1. Dissolve DBCO-NHS ester in DMSO at 10 mM. Use antibody at 1–10 mg/ml in a suitable buffer (e.g., PBS, pH ~7.4). In many SE-labeling protocols, 2 mg/ml or higher is standard; a range of 1–10 mg/ml is acceptable. Mix the antibody with a 20–30-fold molar excess of DBCO-NHS. Keep the final DMSO content at less than 20%.
2. React at room temperature for 60 minutes.
3. (Optional) Typically, SE conjugations do not require a specific quench step and proceed directly to purification. However, if desired, add approximately 10 µl of 100 mM glycine (in water) to neutralize unreacted DBCO-NHS. Incubate for 15 minutes.

Antibody-Oligo Conjugation: Click Chemistry with Azide-Oligonucleotide

1. Mix the DBCO-antibody with a 2–4-fold molar excess of azide-modified oligonucleotide (or azide-labeled dye). Recommended solvent: PBS or similar buffer with up to 20% DMSO. Avoid sodium azide.
2. Incubate 2–4 hours at room temperature (or overnight at 4°C) to ensure complete reaction.
3. Check conjugate formation *via* SDS-PAGE. The antibody-oligo conjugate should show a higher molecular weight band than the unmodified antibody.
4. Remove excess oligonucleotide or dye by liquid chromatography (e.g., reverse-phase or ion-exchange HPLC) or another appropriate method.

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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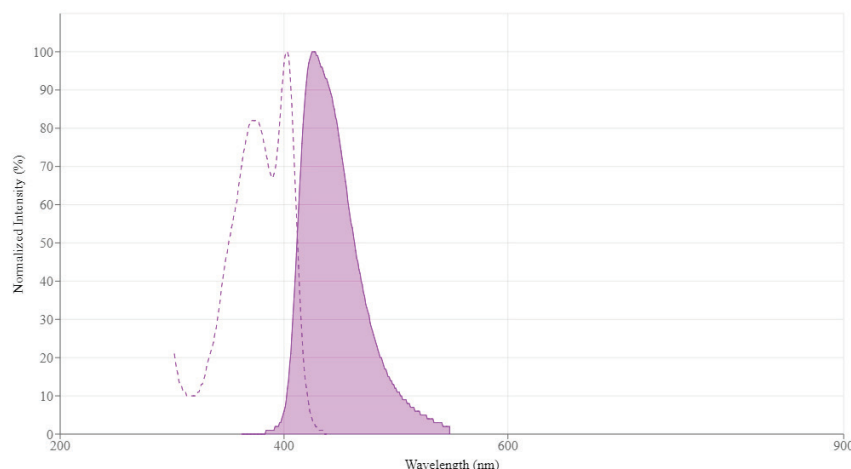
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PRODUCT INFORMATION

Images



iFluor® 405 azide is reasonably stable and shows good reactivity and selectivity with alkyne group in click chemistry. iFluor® dyes are optimized for labeling proteins, in particular, antibodies. These dyes are bright, photostable and have minimal quenching on proteins. They can be well excited by the major laser lines of fluorescence instruments (e.g., 350, 405, 488, 555 and 633 nm).



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