PRODUCT INFORMATION

Protonex™ Red 600

Item No. 44343

FW:	698.9
Purity:	≥90%
Ex./Em. Max:	576/597 nm, in acidic environments
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years

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

Laboratory Procedures

Protonex™ Red 600 is supplied as a solid. A stock solution may be made by dissolving the Protonex™ Red 600 in the solvent of choice, which should be purged with an inert gas. Protonex™ Red 600 is soluble in DMSO.

Description

Protonex™ Red 600 is a pH-dependent dye. It can be used in conjunction with additional dyes for multi-labeling purposes. Protonex™ Red 600 displays excitation/emission maxima of 576/597 nm, respectively, with high fluorescence intensity in acidic pH environments, such as phagosomes, endosomes, and lysosomes, but only weakly fluoresces in the extracellular environment. It can be used for fluorescence microscopy and flow cytometry applications. Protonex™ Red 600 has been used to measure intracellular acidity levels in isolated mouse bone marrow-derived macrophages (BMDMs).[1]

ASSAY PROTOCOL

Note: *This protocol should be used as a guideline and modified according to the user's specific needs. Treat cells as desired prior to making the Protonex™ Red 600 working solution.*

1. Prepare a 1-10 mM Protonex™ Red 600 stock solution in DMSO.
2. Treat cells as desired.
3. Prepare a 0.1-10 µM Protonex™ Red 600 working solution by diluting the DMSO stock solution into HEPES-buffered Hanks' balanced salt solution (HHBS) or a similar buffer.
4. Incubate the cells with Protonex™ Red 600 working solution for 15-120 minutes at 37°C.
5. Replace the dye-loaded solution with HHBS or a similar buffer.
6. Analyze the cells by fluorescence microscopy or flow cytometry.

Reference

1. Qiu, J., Zheng, X., Ye, J., *et al.* The V-ATPase a3 subunit deficiency affects osteoarthritis via mTOR-mediated autophagy levels in subchondral bone. *Biochem. Pharmacol.* **241**, 117180 (2025).

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