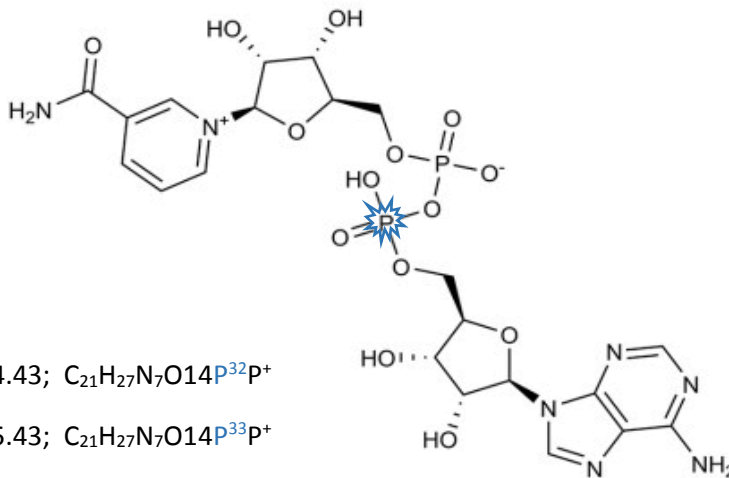


Nicotinamide Adenine Dinucleotide, [adenylate-32P]-

Nicotinamide Adenine Dinucleotide, [adenylate-33P]-

is a coenzyme with a 32P- or 33P- adenylyl phosphate group, respectively. Research applications include e.g. ADP-ribosylation of proteins.

Structure and Molecular weights:



M.W. 664.43; $C_{21}H_{27}N_7O_{14}P^{32}P^+$

M.W. 665.43; $C_{21}H_{27}N_7O_{14}P^{33}P^+$

HARTMANN ANALYTIC currently offers NAD with the following labelings and specifications:

Nicotinamide Adenine Dinucleotide, [adenylate-32P]-		
10 mCi/ml (370 MBq/ml) in a buffer containing 50 mM Tricine, pH 7.6, shipped on dry ice*		
Item	Description	Specific activity *
FP-521	NAD, [adenylate-32P]-, not stabilized, purified by HPLC, radiochemical purity > 95 %. Shipped frozen in our lead lined securitainer.	> 6000 Ci/mmol; 222 TBq/mmol
FP-421		5000 Ci/mmol; 185 TBq/mmol
FP-321		3000 Ci/mmol; 111 TBq/mmol
FP-221		400 Ci/mmol; 14.8 TBq/mmol
FP-821		800 Ci/mmol; 29.6 TBq/mmol

Nicotinamide Adenine Dinucleotide, [adenylate-33P]-		
10 mCi/ml (370 MBq/ml) in a buffer containing 50 mM Tricine, pH 7.6, shipped on dry ice*		
Item	Description	Specific activity*
FF-321	NAD, [adenylate-33P]-, purified by HPLC, radiochemical purity > 95 %. Shipped frozen in our securitainer without lead lining.	3000 Ci/mmol; 111 TBq/mmol

* If you need a different concentration, specific activity or buffer composition, please [contact us](#)

Stability and Storage:

NAD should be stored at -20 °C. We recommend thawing and storing the product on ice while in use.

Safe Handling of 32-Phosphorus:

³²P is the highest energy radionuclide commonly encountered in research laboratories and requires special care. Avoid exposure; do not hold tubes containing even small quantities of P-32 any longer than necessary. Use a stand or holder if quantities greater than a few tens of MBq (=1 mCi) are used, and finger dosimeters should be worn. The use of lead impregnated rubber gloves is also recommended. Even with low density materials (plastics), the absorption of beta particles gives rise to relatively high energy bremsstrahlung which may require some lead shielding when quantities greater than a few hundred MBq are being handled.

Safe Handling of P33:

In general, phosphorus-33 does not require special precautions over and above those necessary for any beta-emitting radionuclide of this energy of emission.

Please send us your request to

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Phone: +49 531 260280