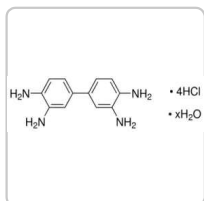


Saisir le nom du produit, le numéro de lot, etc.

[Toutes les photos](#) (8)

Documents

[FDS](#)[COO/COA](#)[Fiche des caractéristiques](#)[Plus de documents](#) »**D5637** ▶ **Sigma-Aldrich.**

3,3'-Diaminobenzidine tetrahydrochloride hydrate

★★★★★ (0)

≥96%

Empirical Formula (Hill Notation):

 $C_{12}H_{14}N_4 \cdot 4HCl \cdot xH_2O$ Numéro CAS: **868272-85-9**Numéro EC: **231-018-9**ID de substance PubChem: **57654109**

Poids moléculaire: 360.11 (anhydrous basis)

Numéro MDL: **MFCD08273058**

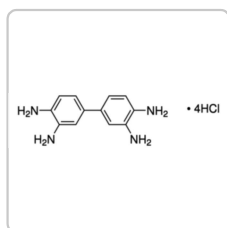
NACRES: NA.47

Référence	Conditionnement	Disponibilité	Prix	Quantité
D5637-1G	1 G	✓ Only 5 left in stock (more on the way) Détails...	44,30 €	- + i
D5637-5G	5 G	✓ Only 2 left in stock (more on the way) Détails...	154,00 €	- + i
D5637-10G	10 G	✓ Only 1 left in stock (more on the way) Détails...	283,00 €	- + i
D5637-25G	25 G	✓ Only 2 left in stock (more on the way) Détails...	610,00 €	- + i
D5637-50G	50 G	✓ Only 2 left in stock (more on the way) Détails...	915,00 €	- + i

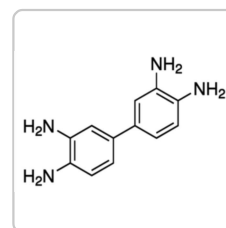
[HAUT](#)

[Demander une commande en gros](#)[Ajouter au panier](#)

PRODUITS RECOMMANDÉS



Sigma-Aldrich

D5905**3,3'-Diaminobenzidine tetrahydrochloride**
tablet, 10 mg substrate per tablet[Consulter le prix et la disponibilité](#)

Sigma-Aldrich

D8001**3,3'-Diaminobenzidine**
≥97% (HPLC)[Consulter le prix et la disponibilité](#)

PROPRIÉTÉS

Niveau de qualité	200
Essai/Dosage	≥96%
Forme	powder
Pf	280 °C
Solubilité	H ₂ O: 50 mg/mL

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application(s)	diagnostic assay manufacturing hematology histology
Temp. de stockage	-20°C
SMILES string	<chem>O.C1.C1.C1.C1.Nc1ccc(cc1N)-c2ccc(N)c(N)c2</chem>
InChI	1S/C12H14N4.4ClH.H2O/c13-9-3-1-7(5-11(9)15)8-2-4-10(14)12(16)6-8;;;;;/h1-6H,13-16H2;4*1H;1H2
InChI key	DXWSCXIZIHILNP-UHFFFAOYSA-N

Vous recherchez des produits similaires ? Visitez [Guide de comparaison des produits](#)

Catégories apparentées

[Hematology Stains](#)

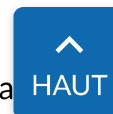
[Histology Stains](#)

DESCRIPTION

Description générale

3,3'-Diaminobenzidine tetrahydrochloride hydrate, also known as DAB HCl is designed as an immunohistology stain to visualize peroxidase activity in cells. DAB oxidation can be measured using a spectrophotometer.

Application



3,3'-Diaminobenzidine tetrahydrochloride hydrate is suitable for immunohistology staining procedures, western blotting, and FISH (fluorescence in situ hybridization). DAB is used in studying epithelial cell apoptosis in the event of early cataracts, and immunohistochemistry protocols of autosomal dominant polycystic kidney disease (PKD).

Conditionnement

1, 5, 10, 25, 50 g in glass bottle

Actions biochimiques/physiologiques

In the peroxidase reaction, DAB serves as a hydrogen donor in the presence of peroxide. The oxidized DAB forms an insoluble brown-colored complex.

INFORMATIONS SUR LA SÉCURITÉ

Pictograms



GHS08

Mention d'avertissement

Danger

Mentions de danger

H341 - H350

Conseils de prudence

P201 - P202 - P280 - P308 +
P313 - P405 - P501

Classification des risques

Carc. 1B - Muta. 2

Code de la classe de stockage

6.1C - Combustible, acute
toxic Cat.3 / toxic compounds
or compounds which causing
chronic effects

WGK

WGK 3

Équipement de protection individuelle

Eyeshields, Gloves, type N95
(US)

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LISTES RÉGLEMENTAIRES

Les listes réglementaires sont principalement fournies pour les produits chimiques. Seules des informations limitées peuvent être fournies ici pour les produits non chimiques. L'absence d'indication signifie qu'aucun des composants n'est répertorié. Il incombe à l'utilisateur de s'assurer de l'utilisation sûre et légale du produit.

Liste des restrictions (Annexe XXII du Règlement REACH de l'UE)

CAS No. **868272-85-9**

DOCUMENTATION

Certificat d'analyse

Saisir un numéro de lot pour rechercher un certificat d'analyse (COA).

Numéro de lot

e.g. 023J5431

Comment saisir un numéro de lot (COA)

Rechercher

Certificat d'origine

Saisir un numéro de lot pour rechercher un certificat d'origine (COO).

Numéro de lot

e.g. 023J5431

Comment saisir un numéro de lot (COO)

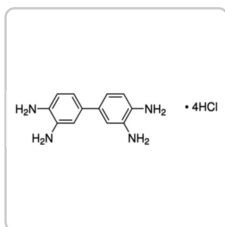
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[Rechercher](#)

Plus De Documents

[Structure Search](#)[FDS](#)

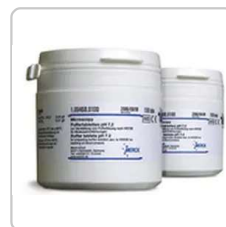
LES CLIENTS ONT ÉGALEMENT CONSULTÉ



Sigma-Aldrich

D6815

3,3'-Diaminobenzidine (DAB) Enhanced Liquid Substrate System tetrahydrochloride
for Membrane Applications

[Consulter le prix et la disponibilité](#)

Sigma-Aldrich

1.02924

DAB-buffer tablets
suitable for immunohistochemistry

[Consulter le prix et la disponibilité](#)

QUESTIONS FRÉQUEMMENT POSÉES (FAQ)

What is Product D5637, 3,3'-Diaminobenzidine tetrahydrochloride hydrate (DAB), soluble in?

DAB HCl is soluble in water at 50 mg/ml yielding a clear to slightly hazy solution. For consistency, it is important to allow DAB to come to room temperature before making solutions. Water quality is extremely important, so only high quality deionized or distilled water should be used to make DAB solutions.

What is the solution stability of Product D5637, 3,3'-Diaminobenzidine tetrahydrochloride hydrate (DAB)?

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In our experience, solutions of DAB should be made immediately prior to use for best results. If and only if necessary, solutions can be kept in the dark and refrigerated for overnight storage. Based on our Immunology Department's experience, storing the solution overnight did not give good reproducibility. However, the literature indicates that it is possible to store solutions of DAB at -20°C. DAB dissolved in Tris buffered saline (pH 7.6) at 0.6 mg/ml was reported to be stable for several weeks at 4°C.

Can the solutions of Product D5637, 3,3'-Diaminobenzidine tetrahydrochloride hydrate (DAB), be filtered?

DAB solution may be filtered through a 0.2 micron filter immediately prior to use.

Do you have a staining protocol for Product D5637, 3,3'-Diaminobenzidine tetrahydrochloride hydrate (DAB)?

Dissolve 10 mg in 15 mL of Tris buffered saline, pH 7.6 (Tris-buffered saline tablet, Sigma Product No. T5030 may be used). Add 12 uL of fresh 30% hydrogen peroxide (Sigma Product No. H1009) prior to use. Solution may be filtered through a 0.2 micron filter immediately prior to use if necessary. DAB and hydrogen peroxide concentrations may be adjusted to suit individual applications. The stain can be enhanced with Ni. Make up 0.3% (w/v) NiCl₂ in water. Add 1 mL of the NiCl₂ stock to 9 mL DAB solution.

What is the shelf life of Product D5637, 3,3'-Diaminobenzidine tetrahydrochloride hydrate (DAB)?

This product has a shelf life of 3 years.

How is Product D5637, 3,3'-Diaminobenzidine tetrahydrochloride hydrate (DAB), shipped and stored?

The product is shipped at ambient temperature. However, it is stored at -20 degrees C for long term storage.

Which document(s) contains shelf-life or expiration date information for a given product?

If available for a given product, the recommended re-test date or the expiration date can be found on the Certificate of Analysis.

How do I get lot-specific information or a Certificate of Analysis?

The lot specific COA document can be found by entering the lot number above under the "Documents" section.

How do I find price and availability?

There are several ways to find pricing and availability for our products. Once you log onto our website, you will find the price and availability displayed on the product detail page. You can contact any of our Customer Sales and Service offices to receive a quote. USA customers: 1-800-325-3010 or view [local office numbers](#).

What is the Department of Transportation shipping information for this product?



Transportation information can be found in Section 14 of the product's (M)SDS. To access the shipping information for this material, use the link on the product detail page for the product.

My question is not addressed here, how can I contact Technical Service for assistance?

Ask a Scientist [here](#).

ARTICLES REVUS PAR DES PAIRS

Cerebrospinal fluid lipocalin 2 as a novel biomarker for the differential diagnosis of vascular dementia.

Franç Llorens et al.

Nature communications, 11(1), 619-619 (2020-02-01)

The clinical diagnosis of vascular dementia (VaD) is based on imaging criteria, and specific biochemical markers are not available. Here, we investigated the potential of cerebrospinal fluid (CSF) lipocalin 2 (LCN2), a secreted glycoprotein that has been suggested as mediating

A gene expression profile related to immune dampening in the tumor microenvironment is associated with poor prognosis in gastric adenocarcinoma.

Fatima Solange Pasini et al.

Journal of gastroenterology, 49(11), 1453-1466 (2013-11-13)

The TNM Classification of Malignant Tumours (TNM) staging system is the primary means of determining a prognosis for gastric adenocarcinoma (GC). However, tumor behavior in the individual patient is unpredictable and in spite of treatment advances, a classification of 'advanced

Bicuspid aortic valve: phosphorylation of c-Kit and downstream targets are prognostic for future aortopathy.

Nimrat Grewal et al.

European journal of cardio-thoracic surgery : official journal of the European Association for Cardio-thoracic Surgery, 46(5), 831-839 (2014-08-28)

The clinical course of many patients with a bicuspid aortic valve (BAV) is complicated by ascending aortic dilatation. Currently, the indication for aortic surgery is solely based on the aortic diameter and subsequently only a small proportion of BAV patients

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Hearing impairment and associated morphological changes in pituitary adenylate cyclase activating polypeptide (PACAP)-deficient mice.

Daniel Balazs Fulop et al.

Scientific reports, 9(1), 14598-14598 (2019-10-12)

Pituitary adenylate cyclase activating polypeptide (PACAP) is a regulatory and cytoprotective neuropeptide, its deficiency implies accelerated aging in mice. It is present in the auditory system having antiapoptotic effects. Expression of Ca²⁺-binding proteins and its PAC1 receptor differs in the

Sex differences in urocortin 1 dynamics in the non-preganglionic Edinger-Westphal nucleus of the rat.

Nicole M Derks et al.

Neuroscience research, 66(1), 117-123 (2009-10-17)

Women have higher vulnerability to stress and stress-induced diseases than men. Estrogen may be involved in the control of sex-dependent stress adaptation via estrogen receptors alpha and beta (ERalpha/beta). Urocortin 1 (Ucn1) in the npEW plays an important role in

[Afficher tous les articles scientifiques apparentés](#)

PROTOCOLES ET ARTICLES SCIENTIFIQUES

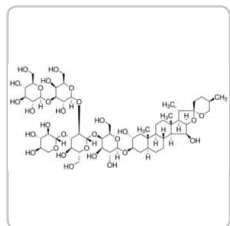
Articles

Colorimetric Alkaline Phosphatase and Peroxidase Substrate Detection Systems

Nitroblue Tetrazolium (NBT) is used with the alkaline phosphatase substrate 5-Bromo- 4-Chloro-3-Indolyl Phosphate (BCIP) in western blotting and immunohistological staining procedures. These substrate systems produce an insoluble NBT diformazan end product that is blue to purple in color.

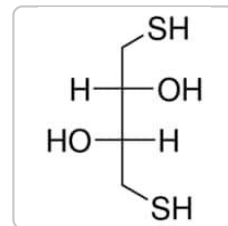
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PRODUITS CONSULTÉS RÉCEMMENT



Sigma-Aldrich
D5628
Digitonin
~50% (TLC)

[Consulter le prix et la disponibilité](#)



Sigma-Aldrich
D5545
DL-Dithiothreitol
BioXtra, ≥99.0% (titration)

[Consulter le prix et la disponibilité](#)

Évaluations



[Soyez le premier à donner votre avis sur ce produit](#)

Questions

[Soyez le premier à poser une question](#)

SERVICE TECHNIQUE

Notre équipe de scientifiques dispose d'une expérience dans tous les secteurs de la recherche, notamment en sciences de la vie, science des matériaux, synthèse chimique, chromatographie, analyse et dans de nombreux autres domaines..

[Contacter notre Service technique](#)

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Que pouvons-nous faire pour améliorer cette page spécifique de notre site Internet ?

Envoyer

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