

**1. Identification of the substance/preparation and of the company/undertaking**

Rat NGAL ELISA Kit (KIT 046) (for research use only)

Catalog No: KIT 046

The Rat NGAL ELISA Kit (KIT 046) is intended by BioPorto Diagnostics for in vitro determination of rat NGAL in urine, plasma or serum, tissue extracts or culture media. For research use only.


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**2. Hazards identification**

None of the hazardous reagents are present in an amount that qualifies the products as hazardous according to Directive 67/548/EC.

However exposure to large amounts and/or ingestion can potentially be hazardous.

	Kit component	① Microwell plate, 96 precoated wells	② 5x Sample Diluent Conc.	③ Rat NGAL Calibrator 1-8 (3a-h)	④ 25x Wash Solution Conc.	⑤ Biotinylated Rat NGAL Antibody	⑥ HRP- Streptavidin	⑦ TMB Substrate	⑧ Stop Solution
<b>Hazard to man (if exposed to large amounts)</b>									
Risk of percutaneous absorption.			X	X	X	X			
Risk of sensitization of skin.			X	X	X	X		X	X
<b>Hazard to the environment</b>									
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.			(X)	(X)	(X)	(X)			

**3. Composition/information on ingredients**

The kit contains the following components: Microwell plate, 96 precoated wells, 5x Sample Diluent Conc., Rat NGAL Calibrators 1-8, 25x Wash Solution Conc., Biotinylated Rat NGAL Antibody, HRP-Streptavidin, TMB Substrate and Stop Solution.

No single component contains a hazardous ingredient in an amount that requires labeling. The contents in the components of ingredients listed as hazardous are given below:

	Component	Ingredient	Concentration	CAS#	EC#	Classification (pure ingredient)	Classification (kit component)
③a-h	Rat NGAL Calibrator 1-8	NGAL (source: recombinant, expressed in E. coli)	0.00000004% (w/v)	-	-	NA, Biologic	NA
②	5x Sample Diluent Conc.	Bovine serum albumin (BSA, source, US cattle)	2.5% (w/v)	-	-	NA, biologic	NA
③a-h	Rat NGAL Calibrator 1-8		0.5% (w/v)				
⑤	Biotinylated Rat NGAL Antibody		0.5% (w/v)				
②	5x Sample Diluent Conc.	Phenol red	0.008% (w/v)	143-74-8	205-609-7	Xi; R36/37/38	NA
③a-h	Rat NGAL Calibrator 1-8		0.008% w/v				
⑤	Biotinylated Rat-NGAL Antibody		0.008% (w/v)				
②	5x Sample Diluent Conc.	ProClin® 950 (9,5-9,9 (w/v) % 2-Methyl-2H-isothiazol-3-one)	0.01% (w/v) pure chemical	2682-20-4	220-239-6	C; R22/34/43 N; R50	NA
③a-h	Rat NGAL Calibrator 1-8						
④	25x Wash Solution Conc.						
⑤	Biotinylated Rat NGAL Antibody						
⑦	TMB Substrate	3,3',5,5'-tetramethylbenzidine	<0.02% (w/v) in H <sub>2</sub> O	54827-17-7	259-364-6	Xn; R22 N; R51/53	NA
⑧	Stop Solution	Sulfuric acid	0.5 mol/L	7664-93-97	231-639-5	C; R35	NA

#### 4. First aid measures

First aid personnel should ensure self protection.

After inhalation: Immediately remove the casualty from exposure and move to fresh air. If breathing stops, immediately apply mechanical ventilation and apply an oxygen mask if available. Arrange medical treatment.

After skin contact: Wash off with plenty of water. Remove contaminated clothing. If necessary arrange medical treatment.

After eye contact: Rinse out with plenty of water with the eyelids held wide open. Arrange medical treatment.

After swallowing: Immediately make casualty drink plenty of water. Immediately arrange medical treatment.

#### 5. Fire-fighting measures

Data for kit component solutions. Not for individual ingredients.

##### **Suitable extinguishing media**

Use water spray, dry sand, carbon dioxide or foam depending on the surrounding materials and equipment.

##### **Special risks**

None known.

#### 6. Accidental release measures

##### **Person-related precautionary measures**

Do not inhale aerosols. Immediately change contaminated clothing.

##### **Environmental-precautionary measures**

Do not allow to enter sewerage system. Contain spill.

##### **Procedures for cleaning/absorption**

Take up with liquid-absorbent material. Forward for disposal. Clean up and disinfect affected area.

#### 7. Handling and storage

##### **Handling**

Cannot be stored indefinitely. Expiry date is printed on the kit box label.

General good laboratory practice should be maintained. Handle calibrators and unknown samples as potentially infectious.

Take care to keep workplace clean and dry. The substances used should not be present at the place of work in quantities above those required for carrying out the work. Do not leave containers open. Avoid general contact by handling. Compatible materials: glass, plastic.

##### **Storage**

Store components in the box with the lids tightly closed. Store all components at 2-8°C.

##### **Specific use**

The product is intended for research use only.

Intended for professional use only.

#### 8. Exposure controls/personal protection

Data for kit components solutions (not for individual ingredients).

##### **Personal protective clothing**

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.

##### **Respiratory protection**

Required only in unintentional release of the substance.

**Eye protection**

Not required when handling as recommended.

**Skin protection**

Required. Wear laboratory coat and protective gloves. The glove material must be sufficient impermeable and resistant to the substance. Check the tightness before wear. Protect the skin.

**General protective and hygienic measures**

Foods and beverages should not be consumed in the vicinity of the work area. Wash hands before work breaks and on finishing the work.

**9. Physical and chemical properties**

Data for kit component solutions (not for individual ingredients)

Appearance:	Clear to yellow or red solutions, odorless
pH:	Neutral except for Stop Solution (pH ~0.6)
Boiling point:	NA
Flash point:	NA
Flammability:	NA
Explosive properties:	NA
Oxidizing properties:	NA
Vapor pressure:	NA
Relative density:	NA
Solubility:	Soluble in water
Viscosity:	NA
Vapor density:	NA
Evaporation rate:	NA
Additional parameters:	NA

**10. Stability and reactivity**

**Stability:** Stable. However note expiry date printed on the kit box label. Store at 2-8°C and replace the components at this temperature at the end of the working procedure.

**Conditions to avoid:** Heating above room temperature, freezing.

**Materials to avoid:** Generally use only clean glass and plastic suitable for laboratory use for handling the kit components.

None known materials to be avoided.

**Dangerous reactions:** In the case of fire see chapter 5. No dangerous reactions known.

**Further information:** Note that Stop Solution contains sulfuric acid (H<sub>2</sub>SO<sub>4</sub>) and has a corrosive effect.

**11. Toxicological information**

Because of the small size of the containers and the low concentrations of hazardous ingredients, the toxicological risks are minor.

Toxicological experiments have not been done on the kit components.

Little information is to be found on the component ProClin® 950. The MSDS from Sigma-Aldrich for this component states the following:

**Acute toxicity**

After inhalation:	May be harmful after inhalation and irritate the respiratory tract.
After swallowing:	Harmful if swallowed
After skin contact:	Irritation of the skin. Danger of skin absorption. May lead to hypersensitivity.
After eye contact:	Causes eye irritation.



The following toxicological information is for the hazardous ingredient 2-Methyl-2H-isothiazol-3-one in **pure form**.

Information is from The Scientific Committee on Cosmetic Products and Non-Food Products Intended for Consumers (SCCNFP):

2-Methyl-2H-isothiazol-3-one (**ingredient in 5x Sample Diluent Concentrate, Rat NGAL Calibrators, 25x Wash Solution Concentrate, Biotinylated Rat NGAL Antibody**):

**Animal toxicological data:**

LD<sub>50</sub> (oral, rat, male): 235 mg/kg, LD<sub>50</sub> (oral, rat, female): 183mg/kg LD<sub>50</sub> (dermal, rat, male and female): > 5.000 mg/kg.

**Human toxicological data:** No data available.

**12. Ecological information**

**ProClin® 950**

Do not allow to enter waters, waste water or soil. Highly toxic for aquatic organisms.

No further data available

**Further ecological information**

Due to the small size of the containers and the low concentrations of hazardous ingredients in this product, risks are estimated to be minor.

**13. Disposal considerations**

Product: Must be disposed in compliance with the respective national regulations.

Packaging: Must be disposed in compliance with the respective national regulations.

**14. Transport information**

No special transport regulations

ADR (road)/ RID (rail): NA

IMDG (sea): NA

ICAO / IATA (air): NA

**15. Regulatory information**

No single component contains a hazardous ingredient in an amount that requires identification and labeling according to EC directives.

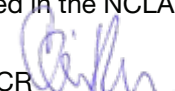
**16. Other information**

For research use only.

For professional use only.

Read instructions for use before using the product. Observe the general safety regulations when handling chemicals. Good laboratory practice is the best preventive measure to avoid hazards.

The information above is believed to be accurate and represents the best information currently available to us. Data has been searched in the NCLASS, Ecotox, ChemIdplus databases and SCCNFP.

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Date: 07.12.2010

**Revision history**

Version	Change	Date
01	New document	06.07.2010
02	Bronidox has been exchanged with Proclin 950 as preservative in the components 5x Sample Diluent Concentrate, Rat NGAL Calibrators, 25x Wash Solution Concentrate, Biotinylated Rat NGAL Antibody. Sections 3, 11, 12 and 16 have been updated accordingly.	07.12.2010