

## Heart lysate

Cat.No. 603-HEA; , 200 µg tissue lysate

### Data Sheet

|                         |  |
|-------------------------|--|
| Reconstitution/ Storage | 200 µg lysate in 1 X SDS PAGE loading buffer 'ready to use'.<br>Total volume: 100 µl. Concentration: 2 mg/ml.<br>Aliquot and store at -20°C until use. |
| Applications            | <b>WB:</b> yes   |
| Loading/lane            | 10-30 µg   |
| Source                  | White Wistar   |
| Remarks                 | Since several proteins aggregate after boiling, these lysates are unboiled. Boil sample before loading, if this is recommended for your protocol.      |

**TO BE USED IN VITRO / FOR RESEARCH ONLY**  
**NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS**

In many cases the relative concentration of the protein of interest is high enough to use whole brain lysate for Western blot testing. If the concentration is less than 0.2% of total protein it may be difficult to distinguish signals from background noise. Since a lot of proteins are localized in distinct cellular compartments, subfractioning may overcome this problem. Fractions have been prepared according to our protocol. Protein concentration has been determined with a Bradford protein quantification assay.

### Selected General References

Expression profile of PRAF2 in the human brain and enrichment in synaptic vesicles.  
Koomoa DL, Go RC, Wester K, Bachmann AS  
Neuroscience letters (2008) 436(2): 171-6.

Synapsin I (protein I), a nerve terminal-specific phosphoprotein. III. Its association with synaptic vesicles studied in a highly purified synaptic vesicle preparation.  
Huttner WB, Schiebler W, Greengard P, De Camilli P  
The Journal of cell biology (1983) 96(5): 1374-88.

The preparation and characterization of synaptic vesicles of high purity.  
Nagy A, Baker RR, Morris SJ, Whittaker VP  
Brain research (1976) 109(2): 285-309.

## Identification of the preparation and of the company

**Product name:** rat heart (whole heart homogenate)

**Art. No.:** 603-HEA

**Application of the preparation:** Laboratory chemical

**Manufacturer/Supplier:**

Synaptic Systems GmbH  
Rudolf-Wissell-Straße 28  
37079 Göttingen  
Phone:+49 (0)551-50556-358  
Fax:+49 (0)551-50556-384  
E-mail: support@susy.com

**Information in case of emergency:**

Giftinformation München  
Phone: +49 (0)89 19240

**Components:**

| Common Name             | Classification                 | Art. No. |
|-------------------------|--------------------------------|----------|
| Sodium dodecyl sulphate | Xn R20/22, Xi R37/38-41        | 603-HEA  |
| Mercaptoethanol         | T R23-25, Xi 38-41<br>N R50/53 | 603-HEA  |

## 1. Identification of the preparation and of the company

**Product name:** rat heart (whole heart homogenate)

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## 2. Information concerning particular hazards for human and environment:

This product is hazardous according to EEC directives 67/548/EEC and 1999/45/EC.

**T; Toxic**

R23/24/25: Toxic by inhalation, in contact with skin and if swallowed.

**Xi; Irritant**

R38-41: Irritating to skin. Risk of serious damage to eyes.

**Xn; harmful**

R20/22: harmful in contact with skin and if swallowed.

**N; Dangerous for the environment**

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### GHS label elements



**Signal word:** Danger

### Hazard statements

|                  |   |
|------------------|---|
| <b>H302</b>      | Harmful if swallowed.                                 |
| <b>H311+H331</b> | Toxic in contact with skin or if inhaled.             |
| <b>H315</b>      | Causes skin irritation.                               |
| <b>H318</b>      | Causes serious eye damage.                            |
| <b>H410</b>      | Very toxic to aquatic life with long lasting effects. |

### Precautionary statements

|                       |  |
|-----------------------|--|
| <b>P280</b>           | Wear protective gloves / eye protection / face protection.   |
| <b>P273</b>           | Avoid release to the environment.  |
| <b>P302+P352</b>      | IF ON SKIN: Wash with plenty of soap and water.  |
| <b>P301+P312</b>      | IF SWALLOWED: Call a poison center or physician if you feel unwell.  |
| <b>P305+P351+P338</b> | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| <b>P403+P233</b>      | Store in a well ventilated place. Keep container tightly closed.   |

### Additional information:

All chemicals are potentially dangerous. They should only be handled by specially trained personnel.

### 3. Composition/information on ingredients

#### Chemical characterization

**Description:** Aqueous solution.

#### Dangerous components:

CAS No. 151-21-3 Sodium Dodecyl sulphate >1% (3.0%)

CAS No. 6-24-2 Mercaptoethanol >1% (3.3%)

### 4. First-aid measures

**General information:** Immediately remove any clothing soiled by the product.

**After inhalation:** Supply fresh air and to be sure call for a doctor.

**After skin contact:** Immediately wash off with soap and plenty of water. If skin irritation continues, consult a doctor.

**After eye contact:** Rinse opened eye for 15 minutes under running water. If symptoms persist, consult a doctor.

**After swallowing:** Rinse out mouth and drink a glass of water. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention.

### 5. Fire-fighting measures

#### Suitable extinguishing agents:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### Special hazards caused by the substance, its products of combustion or resulting gases:

Decomposition products may include carbon oxides, Hydrogen sulfide and Sulphur oxide.

#### Protective equipment:

Wear self-contained respiratory protective device. Wear fully protective suit.

## 6. Accidental release measures

**Person-related safety precautions:** Wear protective clothing. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

**Measures for environmental protection:** Do not allow to enter sewers/surface or ground water.

**Measures for cleaning/collecting:** Soak up with inert absorbent material.

## 7. Handling and storage

**Information for safe handling:** Handling corresponding to laboratory safety guidelines. Work in fume cupboard. Ensure good ventilation.

**Information about fire - and explosion protection:** No special measures required.

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Store away from oxidizing agents.

Store away from foodstuffs.

**Further information about storage conditions:** Storage temperature: -20 °C

## 8. Exposure controls/personal protection

**Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Respiratory protection:** Required when vapours/aerosols are generated.

**Protection of hands:** Handle with gloves.

**Eye protection:** Tightly sealed goggles

**Body protection:** Protective work clothing

## 9. Physical and chemical properties

**General Information**

**Form:** viscous liquid

**Colour:** Blue.

**Odour:** Hydrogen sulfide, characteristic

**Change in condition**

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** Undetermined.

**Flash point:** Not applicable.

**Self-igniting:** Product is not self-igniting.

**Danger of explosion:** Product does not present an explosion hazard.

**Density:** Not determined.

**Solubility in / Miscibility with water:** Soluble.

## 10. Stability and reactivity

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Materials to be avoided:**

Strong oxidizing agents.

**Dangerous decomposition products:**

Hazardous decomposition products formed under fire conditions. – Carbon oxides, Sulphur oxides

## 11. Toxicological information

### Acute toxicity:

### LD/LC50 values relevant for classification:

#### **Mercaptoethanol**

Oral LD50 98-168 mg/kg (rat)

Dermal LD50 167mg/kg (rabbit)

Inhalative LC50/4h ~2mg/l (rat (ECHA))

### Primary irritant effect:

**on the skin:** irritand to skin and mucous membranes

**on the eye:** Risk of corneal opacity, strongly irritand danger of severe eye injury

**after inhalation:** Irritating, coughing, dyspnoea

**Sensitization:** No sensitizing effects known.

### Further information:

The product should be handled with the care usual when dealing with chemicals.

#### **Sodium Dodecyl Sulphate**

Oral LD50 1427 mg/kg (rat)

Dermal LD50 580 mg/kg (rabbit)

### Primary irritant effect:

**on the skin:** irritand to skin and mucous membranes

**on the eye:** Risk of corneal opacity, strongly irritand danger of severe eye injury

**after inhalation:** Irritating, coughing, dyspnoea

**Sensitization:** No sensitizing effects known.

### Further information:

The product should be handled with the care usual when dealing with chemicals.

## 12. Ecological information

### Ecotoxicological effects

### Acquatic toxicity:

#### **Mercaptoethanol**

### LC50 values relevant for classification:

Fish: 37mg/l/96h

Daphnia: 0,4mg/l/48h

Algeal: 12mg/l/72h

#### **Sodium Dodecyl Sulphate**

Fish: 4,5mg/l/96h

Daphnia: 6mg/l/48h

Algeal: 53mg/l/72h

## 13. Disposal considerations

**Product:** This material and its container must be disposed of as hazardous waste.

The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.

**Uncleaned packaging:** Disposal according to official regulations.

## 14. Transport information

**Land transport ADR/RID (cross-border)** Not subject to transport regulations.

**Maritime transport IMDG:** Not dangerous goods.

**Air transport ICAO-TI and IATA-DGR:** Not dangerous goods.

## 15. Regulatory information

### Labelling according to EU guidelines:

Hazard symbols: Xi – Irritant

Risk-Phrase: R41 – Risk of serious damage to eyes.

Safety-Phrase: S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S39 – Wear eye/face protection.

### National regulations:

**Waterhazard class:** WGK2 – Hazardous for water.

## 16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Department issuing MSDS:** Department: Research and Development

**Contact:** Herr Dr. Martens

### Abbreviations and acronyms:

**ADR:** Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

**RID:** Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

**IMDG:** International Maritime Code for Dangerous Goods

**IATA:** International Air Transport Association

**IATA-DGR:** Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

**ICAO:** International Civil Aviation Organization

**ICAO-TI:** Technical Instructions by the "International Civil Aviation Organization" (ICAO)

**GHS:** Globally Harmonized System of Classification and Labelling of Chemicals