NeuroPapain™ Enzyme

Neuronal Tissue Dissociation Enzyme

Genlantis
A division of Gene Therapy Systems, Inc.

Contents		
Cat. No.	**Description**	**Quantity**
NM100200	NeuroPapain Enzyme	100 mg

Related Products	Cat. No.
NeuroPrep™ Medium, 100 ml	NM100100
NeuroPure™ E18 Primary Rat Hippocampal Cells	N100200
NeuroPure™ E18 Primary Rat Cortical Cells	N200200
NeuroPure™ P8 Primary Rat Cerebellar Cells	N300200
NeuroPure™ Primary E18 Hypothalamus Cells	1 pair
NeuroPure™ Primary E18 Striatum Cells	~1 x 10^6 cells*
NeuroPure™ Primary E18 Spinal Cord Cells	~1 x 10^6 cells*
NeuroPure™ Primary E18 Midbrain Cells	1 pair

Shipping & Storage	NeuroPapain Enzyme is shipped at room temperature and should be stored at 4° C upon receipt. It is stable for 6 months when stored properly.

INTRODUCTION

The NeuroPapain™ Enzyme is an optimized formulation of the enzyme papain that is ideal for enzymatic dissociation of neuronal tissues such as the NeuroPure and NeuroStem™ Primary Rat Neurons. NeuroPapain Enzyme provides rapid and safe enzymatic digestion of primary rodent neuronal tissues when used in conjuction with NeuroPrep Medium (Cat#: NM100100). Following treatment with NeuroPapain in NeuroPrep Medium, neuronal tissues are more easily dissociated via mechanical trituration, and the number of viable dissociated cells can be increased by up to 100%. However, please note that for assays performed within 4 days of plating, some digestion of surface proteins is inevitable.

MATERIALS AND METHODS

Note: *The following protocol has been validated for use with the NeuroPure Primary Rat Neuronal Cells. Please refer to the NeuroPure protocols for complete details.*

1. Add 5 mg of NeuroPapain Enzyme into 2.5 ml of NeuroPrep Medium. Mix at 37ºC for 15 minutes to completely dissolve the NeuroPapain. Sterilize this solution with a 0.2 µm filter prior to utilizing for tissue digestion. Use within 3 hours for best results.
2. Prior to enzymatic treatment, allow the neuronal tissue to settle for 15 - 30 minutes at 4ºC. Alternatively, place the tube containing the tissue in a 50 ml tube and spin down the cells at 1,100 rpm (200xg) for 1 minute. Transfer the medium from the cell vial to a separate sterile tube while being careful not to remove any loose tissue pieces. Save the medium for trituration following NeuroPapain treatment.
3. Immediately add 2 ml of sterile NeuroPapain solution to the tissue-containing tube, and allow the neuronal tissue to incubate for 30 minutes at 30 ºC. Swirl every two minutes by hand.
4. Following incubation, spin down the cells at 1,100 rpm (200xg) for 1 minute. Remove the NeuroPapain solution, again being careful not to disturb or remove the tissue.
5. Add 1 ml of shipping medium back to the neuronal cells. Save the other 1 ml of shipping medium for Step 4 in the NeuroPure protocol.
6. Proceed to Step 3 in the NeuroPure protocol.

Mike Vengrow 12/5/06 10:24 AM
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10190 Telesis Court. San Diego, CA 92121 • Toll Free (888) 428-0558 • U.S. & Canada (858) 457-1919 • www.genlantis.com