

Cell Centered Database

University of California, San Diego

maryann@ncmir.ucsd.edu

Microscopy Product #:4075 112006ffffff

For the most updated information, please visit

<http://ccdb.ucsd.edu/CCDBWebSite/main?event=displaySum&mpid=4075>

| Image2D | Reconstruction | Segmentation |
|---|----------------|--------------|
|  | | |

Project Information:

| | |
|---------------------|--|
| PROJECT_ID | P1723 |
| PROJECT_NAME | Localization of Metabotropic Glutamate Receptors in Alpha Synuclein Overexpressing Mouse |
| PROJECT_DESCRIPTION | Characterization of staining for mGluR5 glutamate receptor in animal model of Parkinsonian disorders |
| LEADER | Diana Price |
| FUNDING_AGENCY | Branfman Family Foundation |
| PROJECT_START_DATE | |
| PROJECT_END_DATE | |
| COLLABORATORS | Edward Rockenstein, Eliezer Masliah, Mark Ellisman |
| PUBLICATION1 | |
| PUBLICATION2 | |
| PUBLICATION3 | |

| Experiment Information - | |
|--------------------------|--|
| PURPOSE | To determine the relationship between mGluR5 and alpha synuclein staining in different lines of alpha synuclein overexpressing mouse |
| TITLE | Comparison of mGluR5 and synuclein staining |
| EXPERIMENTER | Diana Price |
| EXPERIMENT_NAME | |
| EXPERIMENT_DATE | |

| Subject Information - | |
|-----------------------|----------------------|
| GROUP_BY | Genetic Modification |
| SUBJECT_NAME | Thy-1/asyn |
| FIXATION_METHOD_ID | |
| SCIENTIFIC_NAME | mus musculus |
| SPECIES | mouse |
| STRAIN | C57BL/6-DBA/2 |
| AGE | days |
| AGECLASS | adult |
| ANIMAL_NAME | |
| LITTER_ID | |
| SEX | unspecified |
| VENDOR | Eliezer Masliah |
| WEIGHT | grams |

| Tissue - | |
|---------------------|--------------|
| ANATOMIC_LOCATION | |
| MICROTOME | vibratome |
| ORIENTATION | coronal |
| THICKNESS | 80 um |
| TISSUE_PROD_STORAGE | |
| EXTERNAL_FILE_NAME | |
| TISSUE_GROUP_TYPE | triple label |

| Microscopy Product Information - | |
|----------------------------------|--|
| MICROSCOPY_PRODUCT_ID | 4075 |
| IMAGE_BASENAME | 112006ffffff |
| CREATE_DATE | 2006-11-20 00:00:00.0 |
| INSTRUMENT | Olympus Fluoview 1000 |
| MICROSCOPE_TYPE | LASER SCANNING CONFOCAL |
| PLANE_COUNT | 1 |
| PRODUCT_TYPE | SURVEY |
| PURL | |
| SESSION_NAME | Survey of multiple brain areas |
| TELESCIENCE_SRB | P1723/Experiment_3482/Subject_257/Tissue_370/Microscopy_4075 |
| X_RESOLUTION | .207 um/pixels |
| Y_RESOLUTION | .207 um/pixels |
| XSIZE | 1024 |
| YSIZE | 1024 |

Protocol:

N/A

Specimen Preparation Information:

| Specimen Preparation Information - | |
|------------------------------------|---|
| PROTOCOL_ID | 15692 |
| PROTOCOL_NAME | Immunolabeling P1723 |
| PROTOCOL_DESCRIPTION | Double labeling immunolabeling of alpha synuclein and mGIR5 |
| Protocol Steps: | 1)Molecular Localization(15740) 2)Molecular Localization(15749) 3)Stain(15765) 4)Chemical(15690) 5)Microtomy(15691) |

Molecular Localization (15740)

Molecular Target

MOLECULAR TARGET ID: 15741
MOLECULAR LOCALIZATION ID: 15740
MOLECULE: synuclein
ISO FROM: alpha
MOLECULAR CLASS: protein
ABBREVIATION: Snca
ENTREZ_ID: 20617

Probe used

PROBE ID: 15742
CONTROLS: omitted primary antibody

Antibody ID: 15743
Clonality: monoclonal
Raised in animal: mouse
Antibody type: IgG

Reagent (15696)

| | |
|--------------|-------------------------------|
| Reagent name | anti alpha synuclein antibody |
|--------------|-------------------------------|

| | |
|-------------|--|
| Temperature | |
|-------------|--|

| | |
|----------|--|
| Chemical | Chemical ID: 15695 Chemical name: anti alpha synuclein antibody Vendor: BD Transduction Laboratories Concentration: .25 % Catalog number: AB610787 |
| | Chemical ID: 15704 Chemical name: normal donkey serum Concentration: 1 % |
| | Chemical ID: 24 Chemical name: phosphate buffer Concentration: .1 M pH: 7.4 |
| | Chemical ID: 31 Chemical name: saline Concentration: .9 % Chemical notes: normal saline |

Detection method

Molecule reagent ID: 15709
Molecular type: antibody
Chromagen :Alexa 488

Molecular Localization (15749)

Molecular Target

MOLECULAR TARGET ID: 15750
MOLECULAR LOCALIZATION ID: 15749
MOLECULE: metabotropic glutamate receptor
ISO FROM: 5
MOLECULAR CLASS: protein
ABBREVIATION: GRM5
ENTREZ_ID: 108071

Probe used

PROBE ID: 15751
CONTROLS: omitted primary antibody

Antibody ID: 15752
Clonality: polyclonal
Raised in animal: rabbit
Antibody type: IgG

Reagent (15714)

| | |
|--------------|----------------------|
| Reagent name | anti mGluR5 antibody |
|--------------|----------------------|

| | |
|-------------|--|
| Temperature | |
|-------------|--|

| | |
|----------|---|
| Chemical | Chemical ID: 15719 Chemical name: anti mGluR5 antibody Vendor: Chemicon Concentration: .25 % Catalog number: AB5675 |
|----------|---|

Detection method

Molecule reagent ID: 15721
Molecular type: antibody
Chromagen :Rhodamine Red X

Stain (15765)

Stain ID

15765

Prepared by

Diana Price

Temperature

Stain notes

DAPI is dissolved in ProLong Mounting medium and applied at time of coverslipping

Reagent

Reagent (15760)

Reagent name

DAPI in ProLong

Temperature

Chemical

Chemical ID: 15758
Chemical name: DAPI
Concentration:

Chemical ID: 15759
Chemical name: ProLong mounting medium
Vendor: Molecular Probes
Concentration:

Chemical Fixation (15690)

Time of fixation

Temperature

37 C

Fixative volume

Fixation method

perfusion

Microtomy (15691)

Microtome

0

Thickness

80 um

Temperature

Embedding agent

0

Microtomy notes

Vibratome

| Specimen Description - | |
|------------------------|------------------------|
| ANATOMICAL_DETAIL | 17413 |
| ATLAS_COORD | , , |
| ORGAN | brain |
| REGION | neostriatum |
| SYSTEM | central nervous system |

Imaging Parameters:

| Image Type - | |
|---------------------------------|--|
| OPTICAL_SECTION_SERIES | 17412 |
| OPTICAL_SECTION_SERIES_D ESC | Only a single optical section was acquired for each image. |

| Light Microscopy Product - | |
|----------------------------|---------------------------------------|
| LMPRODUCT_ID | 17414 |
| IMMERSION_MEDIUM | oil |
| LENS | Olympus PlanApo 60X oil |
| LENS_MAGNIFICATION | 60 X |
| MOUNTING_MEDIUM | Prolong (Molecular Probes) |
| NUMERICAL_APERTURE | 1.42 |
| LM_NOTES | DAPI was added to the mounting medium |

Confocal channel (17423)

| | |
|-------------------|-------|
| Confocal image ID | 17423 |
|-------------------|-------|

| | |
|------------|-----------------|
| Fluorophor | Rhodamine Red X |
|------------|-----------------|

| | |
|-------|-----|
| Color | Red |
|-------|-----|

| | |
|-----------------------|--------|
| Excitation wavelength | 543 nm |
|-----------------------|--------|

| | |
|---------------------|--------|
| Emission wavelength | 591 nm |
|---------------------|--------|

Molecular Localization (15749)

| | |
|------------------|---|
| Molecular Target | MOLECULAR TARGET ID: 15750 MOLECULAR LOCALIZATION ID: 15749 MOLECULE: metabotropic glutamate receptor ISO FROM: 5 MOLECULAR CLASS: protein ABBREVIATION: GRM5 ENTREZ_ID: 108071 |
|------------------|---|

Confocal channel (17431)

Confocal image ID 17431

Fluorophor DAPI

Color Blue

Excitation wavelength 405 nm

Emission wavelength 461 nm

Stain (15765)

Stain ID 15765

Stain reagent ID 15760

Prepared by Diana Price

Temperature

Stain notes DAPI is dissolved in ProLong Mounting medium and applied at time of coverslipping

Confocal channel (17417)

| | |
|-------------------|-------|
| Confocal image ID | 17417 |
|-------------------|-------|

| | |
|------------|-----------|
| Fluorophor | Alexa 488 |
|------------|-----------|

| | |
|-------|-------|
| Color | Green |
|-------|-------|

| | |
|-----------------------|--------|
| Excitation wavelength | 488 nm |
|-----------------------|--------|

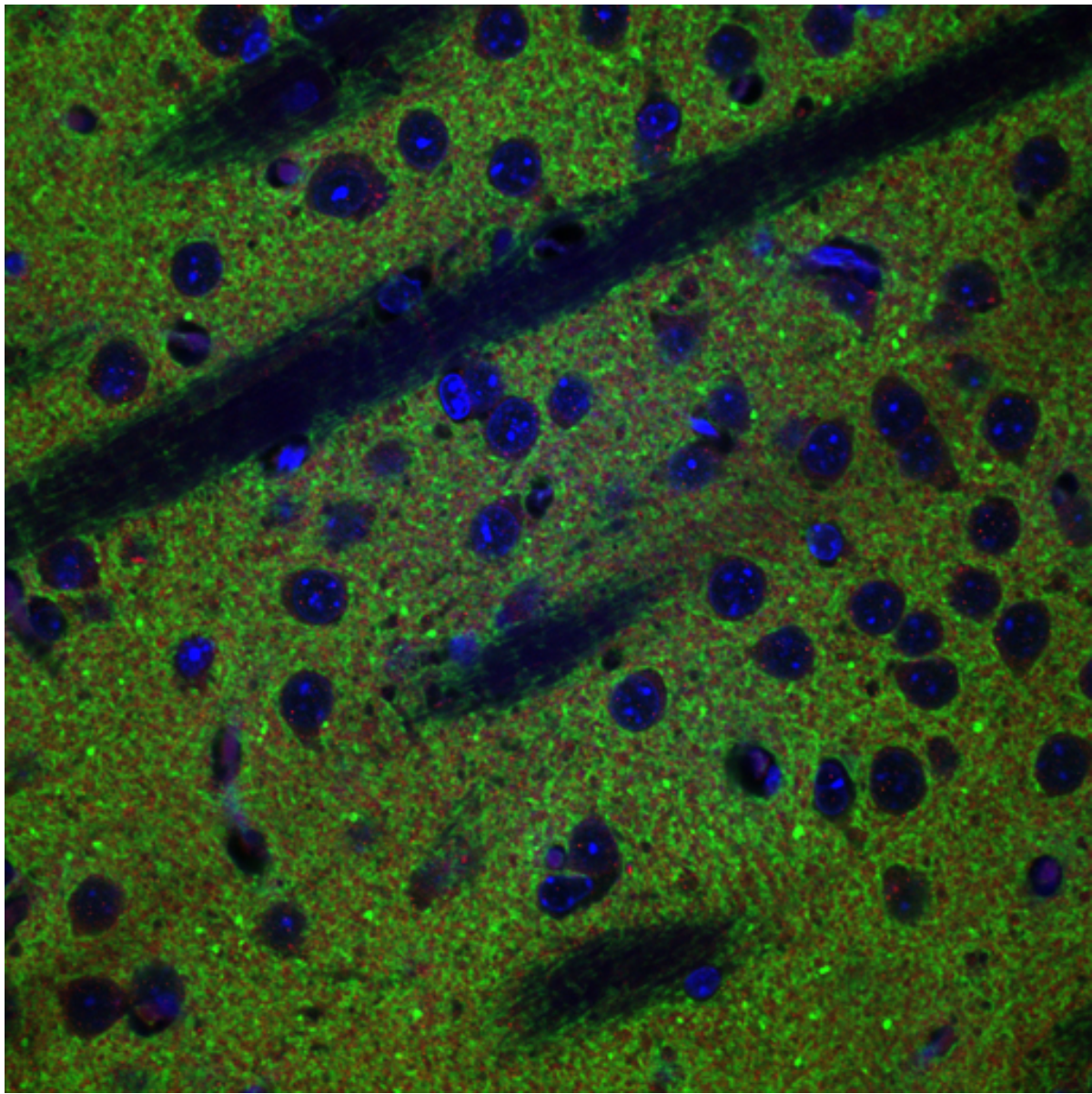
| | |
|---------------------|--------|
| Emission wavelength | 520 nm |
|---------------------|--------|

Molecular Localization (15740)

| | |
|------------------|--|
| Molecular Target | MOLECULAR TARGET ID: 15741 MOLECULAR LOCALIZATION ID: 15740 MOLECULE: synuclein ISO FROM: alpha MOLECULAR CLASS: protein ABBREVIATION: Snca ENTREZ_ID: 20617 |
|------------------|--|

Raw 2D Image

Raw Low Resolution 2D Image -



| Raw 2D Image - | |
|-------------------|---|
| IMAGE2D_ID | 17439 |
| IMAGE_DATE | 2006-11-20 00:00:00.0 |
| IMAGE_DESC | Zip archive containing the 3 channel image file in tiff format (112006ffffff_RGB.tif). Also included is the .oif header file generated by the Olympus Fluoview, which gives additional detail on microscope settings. |
| IMAGE_FILE_FORMAT | tiff |
| IMAGE_FILE_NAME | /usr/local/tomcat/webapps/FileUploadTool/temp_file_upload/112006ffffff_img.jpg |
| RAW_DATA_FILE | /telescience/home/CCDB_DATA_USER.portal/P1723/Experiment_3482/Subject_257/Tissue_370/Microscopy_4075/112006ffffff_img.zip |
| THUMBNAIL_DESC | Triple labeled confocal image of the neostriatum of a transgenic mouse engineered to overexpress alpha synuclein under the Thy-1 promotor, immunolabeled for mGluR5 (red), alpha synuclein (green) and counterstained with DAPI (blue) to reveal cell nuclei. |
| THUMBNAIL_FILE | /usr/local/tomcat/webapps/FileUploadTool/temp_file_upload/112006ffffff_img_thmb.jpg |
| X_RESOLUTION | .207 um/pixel |
| Y_RESOLUTION | .207 um/pixel |
| X_SIZE | 1024 pixels |
| Y_SIZE | 1024 pixels |

USER AGREEMENT

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USER NOTIFICATION

For large size image data, it will take several minutes to download, please be patient. Thanks!

ACKNOWLEDGEMENT

Data used from the CCDB should be appropriately referenced, including both the author of the data and the CCDB. If the data were from a published study, the reference is included in the database record. The following reference should be cited for the CCDB:

Martone, M. E., Gupta, A., Wong, M., Qian, X., Sosinsky, G., Ludaescher, B., and Ellisman, M. H. A cell centered database for electron tomographic data. *J. Struct. Biology* 138: 145-155, 2002.

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Maryann Martone