

Materials List for:

One-step Negative Chromatographic Purification of *Helicobacter pylori* Neutrophil-activating Protein Overexpressed in *Escherichia coli* in Batch Mode

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URL: <https://www.jove.com/video/54043>

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Materials

Name	Company	Catalog Number	Comments
Material			
pET42a-NAP	N/A	N/A	prepared as described in Supplementary data of Reference 15 http://www.sciencedirect.com/science/article/pii/S0006291X08018317
<i>E. coli</i> BL21 (DE3)	Thermo Fisher Scientific Inc	C6000-03	https://www.thermofisher.com/order/catalog/product/C600003
Kanamycin	Amresco	25389-94-0	http://www.amresco-inc.com/KANAMYCIN-SULFATE-0408.cmsx
Isopropyl β-D-1-thiogalactopyranoside (IPTG)	MD Biomedical Inc	101-367-93-1	http://www.antibody-antibodies.com/product_det.php?id=238064&supplier=search&name=IPTG%20
phenylmethylsulfonyl fluoride (PMSF)	Sigma-Aldrich	10837091001	protease inhibitor http://www.sigmaaldrich.com/catalog/product/roche/PMSFRO?lang=en&region=TW
N-alpha-tosyl-L-lysiny-chloromethylketone (TLCK)	Sigma-Aldrich	T7254	protease inhibitor http://www.sigmaaldrich.com/catalog/product/sigma/t7254?lang=en&region=TW
N-tosyl-L-phenylalaniny-chloromethylketone (TPCK)	Sigma-Aldrich	T4376	protease inhibitor http://www.sigmaaldrich.com/catalog/product/sigma/t4376?lang=en&region=TW
Protein standard (bovine serum albumin)	Sigma-Aldrich	P5619	a standard protein for Bio-Rad Protein Assay http://www.sigmaaldrich.com/catalog/product/fluka/p5619?lang=en&region=TW
DEAE–Sephadex A-25 chloride form	Sigma-Aldrich	A25120	http://www.sigmaaldrich.com/catalog/product/sigma/a25120?lang=en&region=TW
Spectrum/Por dialysis tubing	Spectrum Laboratories	132720	with molecular weight cutoff of 14 kDa http://www.spectrumlabs.com/dialysis/Rctubing.html?Pn=132720 ;

Acrodisc® units with Mustang® E membrane	Pall	MSTG25E3	for endotoxin removal; operated at flow rates ranging from 1 to 4 ml/min http://www.pall.com/main/laboratory/product.page?id=19992
mouse monoclonal antibody MAb 16F4	N/A	N/A	raised against the purified HP-NAP of <i>H. pylori</i> strain NCTC 11637 as described in Reference 23; A gift from Drs. Evanthia Galanis and Ianko D. Iankov at Mayo Clinic, USA http://www.sciencedirect.com/science/article/pii/S0264410X10017585
HiLoad 16/600 Superdex 200 pg	GE Healthcare Life Sciences	28989335	for gel filtration chromatography http://www.gelifesciences.com/webapp/wcs/stores/servlet/productById/en/GELifeSciences-tw/28989335
PlusOne silver staining kit, protein	GE Healthcare Life Sciences	17-1150-01	http://www.gelifesciences.com/webapp/wcs/stores/servlet/productById/en/GELifeSciences-tw/17115001
Ficoll-Paque PLUS	GE Healthcare Life Sciences	17-1440-02	for density gradient centrifugation to purify human neutrophils http://www.gelifesciences.com/webapp/wcs/stores/servlet/catalog/en/GELifeSciences-tw/products/AlternativeProductStructure_16963/17144002
Flat bottom 96-well white plate	Thermo Fisher Scientific Inc	236108	http://www.thermoscientific.com/en/product/nunc-f96-microwell-black-white-polystyrene-plate.html
Luminol	Sigma-Aldrich	A8511	protected from light http://www.sigmaaldrich.com/catalog/product/sigma/a8511?lang=en&region=TW
Expand long template PCR system	Sigma-Aldrich	11681834001	source of High Fidelity PCR enzyme mix http://www.sigmaaldrich.com/catalog/product/roche/elongro?lang=en&region=TW
Dpn I	New England Biolabs	R0176S	https://www.neb.com/products/r0176-dpni
Xho I	New England Biolabs	R0146S	https://www.neb.com/products/r0146-xhoi
<i>E. coli</i> DH5α	Thermo Fisher Scientific Inc	18265-017	https://www.thermofisher.com/order/catalog/product/18265017
Name	Company	Product Number	Comments
Equipment			
U-2800 double beam UV/VIS spectrophotometer	Hitachi	N/A	out of market and upgraded to a new model http://hitachi-hta.com/products/life-sciences-chemical-analysis/uv-visible-spectrophotometers
EmulsiFlex-C3 high pressure homogenizer	Avestin Inc	C315320	http://www.avestini.com/English/c3page.html
Hitachi Koki himac CP80WX general ultracentrifuge	Hitachi Koki Co	90106401	for separation of the soluble and insoluble protein fractions from <i>E. coli</i> lysates

			http://centrifuges.hitachi-koki.com/products/ultra/cp_wx/cp_wx.html
ÅKTA FPLC	GE Healthcare Life Sciences	18-1900-26	for gel filtration chromatography http://www.gelifesciences.com/webapp/wcs/stores/servlet/productById/en/GELifeSciences-tw/18190026
Aviv model 62ADS CD spectrophotometer	Aviv Biomedical	N/A	out of market and upgraded to a new model http://www.avivbiomedical.com/circular.php
LAS-3000 imaging system	Fujifilm	N/A	discontinued and replaced http://www.gelifesciences.com/webapp/wcs/stores/servlet/productById/en/GELifeSciences-tw/28955810
Wallac 1420 (Victor2) multilabel counter	Perkin-Elmer	1420-018	for chemiluminescence detection http://www.perkinelmer.com/catalog/product/id/1420-018