

ScienceBridge Tech Site Standard Operating Procedure

Title: Enzyme kit assembly		
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Scope	For use by biotechnology students at the ScienceBridge tech sites when packaging the ScienceBridge Enzyme kits for shipment.			
Objective	This SOP sets the procedural specifications for packaging the Enzyme kits.			
Materials		1 kit	50 kits	100 kits
	1. Assembled Enzyme Kit box	1	50	100
	2. Enzyme wet bag	1	50	100
	a) Pink 0.6mL microcentrifuge tubes labeled HCl, containing 100µL of HCl	6	300	600
	b) Blue 0.6mL microcentrifuge tubes labeled INH, containing 100µL of SB	6	300	600
	c) 15mL conical tubes labeled SDS and containing 10mL of 1% SDS solution	1	50	100
	3. Enzyme dry bag	1	50	100
	a) Weigh boats	10	500	1000
	b) Coffee filters, cut into circles	10	500	1000
	c) Small strips of pH paper	12	600	1200
	d) Colorimetric charts	10	500	1000
	e) pH color charts	3	150	300
	4. Bag of grinding buffer	1	50	100
	a) 15mL conical tubes labeled GB and containing 5mL of grinding buffer	10	500	1000
	5. Bag of transfer pipets	1	50	100
	a) Disposable transfer pipets	40	2000	4000
	6. Bag of glass test tubes	1	50	100
	a) Glass test tubes (12x75mm)	30	1500	3000
	7. Enzyme Labels	1	50	100
	a) Sheet of GB/SUB/ENZ/CTRL/EXP labels	1	50	100
	b) ACID labels	3	150	300
	c) INH labels	3	150	300
	9. 15mL conical tubes labeled L-DOPA , containing 10mL of L-DOPA and wrapped in aluminum foil - Store in freezer	10	500	1000
	10. Enzyme Kit Checklist	1	50	100

Equipment	N/A	-	-	-
Protocol	<p>Part I: Kit Box Preassembly (Prior to Pick Up Date)</p> <ol style="list-style-type: none"> 1. Combine one Enzyme wet bag, one Enzyme dry bag, one bag of 10 GB tubes, one bag of 40 transfer pipets, one bag of 30 glass test tubes, one sheet of Enzyme Labels (GB/SUB/ENZ/CTRL/EXP, 3 ACID and 3 INH labels), into one kit box. 2. Place one printed Enzyme Kit Checklist into each box. 3. QC: Use the checklist to make sure that all room temperature contents are present and tubes are completely sealed 4. Immediately send boxes to Quality Assurance. <p>Part II: Kit Box Preassembly of Temperature Sensitive Supplies</p> <ol style="list-style-type: none"> 1. If teacher ordered 1-3 kits: Fill out 1 teacher bag delivery sticker and affix to a gallon bag. If teacher ordered 4-5 kits: Fill out 2 teacher bag delivery stickers and affix to 2 gallon bags. 2. Package 2 frozen and foiled groups of L-DOPA tubes (5 tubes/foil, 10 tubes/kit) per kit ordered into one of the labeled gallon bags. Check to be sure the foil completely covers the tubes and that the L-DOPA is clear/white (no brown coloration). 3. QC: Recount the number of foiled groups and make there are 2 for every kit ordered on the delivery sticker. <p>Part III: Kit Box Assembly on Pick Up Date (Box 1/X)</p> <ol style="list-style-type: none"> 1. Place completed kits in alphabetical order (and box order #) in delivery pickup area. 2. QC: Once all kits are finished make sure that all the boxes for each order are present and have been fully checked off on their check off sheet. 3. 3. Arrange kit boxes by teacher, so that each teacher's order is grouped. 			
Documentation	<ul style="list-style-type: none"> • As you complete each item, initial the tracking sheet in the OF column • Document updated status of each kit in the order fulfillment tracking log • When complete Part I, fill out customer service tracking sheets • When complete Part II, fill out customer service tracking sheets 			
Storage	<p>Product Storage</p> <ul style="list-style-type: none"> • Completed and checked Part I kits should be passed to Quality Assurance. • Completed and checked Part II kits should be stored in the freezer ready for pick up shelf. <p>Supplies Storage Locations</p> <ul style="list-style-type: none"> • Use supplies in Enzyme Storage Cabinet boxes labeled "Ready for Bagging" • Enzyme Labels stored in "Enzyme Kit Investigation Labels Ready for Kits" box in Enzyme Storage Cabinet • L-DOPA is in the Tech Site Supply freezer on the "Ready for Bagging" shelves. 			

Safety	<ul style="list-style-type: none"> Take care to ensure that liquid-filled tubes do not open during handling
Quantity	<i>Prepare 1 box per kit ordered, plus maintain a surplus stock of 10</i>
Quality Control	<ul style="list-style-type: none"> Part I Fails QC: Replace, add, or remove any parts that are incorrect Part II Fails QC: Replace, add, or remove any parts that are incorrect Make sure that L-DOPA stays frozen and completely wrapped in foil. Use the Enzyme Kit Checklist as a guide when packing the boxes.
When	<ul style="list-style-type: none"> Part I: Done as soon as the delivery date becomes active or do next delivery date if current one is completed Part II: Determine who will be present on the pick-up date ASAP (at least 1 group member needs to attend) to complete on the pick-up day.
Tech Site Kit/Group:	<i>Enzyme: Order Fulfillment</i>