

ROWLEY BIOCHEMICAL INC.

DANVERS INDUSTRIAL PARK
 10 ELECTRONICS AVENUE,
 DANVERS MA 01923
 TEL: 978-739-4883
 FAX: 978-739-5640
www.rowleybio.com

E. CARBOHYDRATE AND MUCOSUBSTANCE STAINS

AMYLOID STAINS

PRODUCT NO.	STAINING METHOD/REAGENTS
	BENHOLD'S CONGO RED FOR AMYLOID <i>Lillie (1965); Puchtler and Sweat (1962); Benhold (1922)</i>
* E - 300 - 1	Alcoholic Congo Red Amyloid in pathological human tissue
E - 300 - 2	Sodium Hydroxide, 1%, Aqueous
E - 300 - 3	Mayer's Acid Hemalum
* E - 300 - 4	Alkaline Alcohol
	CRYSTAL VIOLET STAIN FOR AMYLOID <i>Lillie (1965); Conn (1940)</i>
E - 301 - 1	Crystal Violet Solution
E - 301 - 2	Acetic Acid, 1%, Aqueous
	LIEB'S CRYSTAL VIOLET METHOD (1947)
* E - 302 - 1	Crystal Violet Stock Solution OR Amyloid
E - 302 - 1A	Crystal Violet Working Solution
	SWEAT-PUCHTLER SIRIUS RED METHOD <i>Sweat and Puchtler (1965)</i>
E - 303 - 1	Sirius Red F3BA Solution, 1% Amyloid, nuclei, and elastic tissue
E - 303 - 2	Mayer's Hematoxylin
E - 303 - 3	Borate Buffer, 0.1 M - pH 9.0
* E - 303 - 4	Alkaline Alcohol (10% NH ₄ OH in 85.5% Alcohol)
	VASSAR-CULLING THIOFLAVINE T METHOD <i>Vassar and Culling (1959)</i>
E - 305 - 1	Thioflavin T, 1%, Aqueous Amyloid
E - 305 - 2	Mayer's Hematoxylin
E - 305 - 3	Acetic Acid, 1%
	LAQUEUR'S METHOD FOR ALCOHOLIC HYALIN (1950)
E - 306 - 1	Mayer's Hematoxylin Mallory bodies, erythrocytes, bile pigment and proteinaceous material in liver
* E - 306 - 2	Acid Fuchsin - Aniline Solution
E - 306 - 3	Light Green, 1%
E - 306 - 4	Phosphomolybdic Acid, 1%, Aqueous
* E - 306 - 5	Alcoholic Picric Acid

* denotes extra hazard charge

GLYCOGEN STAINS

PRODUCT NO.	STAINING METHOD/REAGENTS	
	BEST'S METHOD FOR GLYCOGEN <i>Mallory (1961)</i>	
* E - 310 - 1	Carmine Stock	Glycogen
* E - 310 - 4	Ammonium Hydroxide, Conc.	
* E - 310 - 5	Methanol	
E - 310 - 6	Mayer's Hematoxylin	
* E - 310 - 9	Differentiating Solution	
	BAUER'S METHOD FOR GLYCOGEN <i>Bensley (1930)</i>	
		Glycogen
E - 311 - 1	Schiff's Reagent <i>Refrigerate!</i>	
E - 311 - 2	Mayer's Acid Hemalum	
* E - 311 - 5	Chromic Acid, 5%, Aqueous	
E - 311 - 6	Sodium Bisulfite, 0.05 M, Aqueous	
E - 311 - 7	Sodium Carbonate Solution, Sat'd, Aqueous	
	MCMANUS' METHOD (PAS) FOR GLYCOGEN <i>(1948)</i>	
		Glycogen, etc.
E - 312 - 1	Coleman's Feulgen <i>Refrigerate!</i> OR	
E - 312 - 1A	Schiff's Reagent <i>Refrigerate!</i>	
E - 312 - 2	Light Green Stock Solution, 0.2% OR	
E - 312 - 2A	Light Green Working OR	
E - 312 - 2B	Harris' Hematoxylin w/o Mercury	
E - 312 - 3	Periodic Acid, 0.5%, Aqueous	
* E - 312 - 4	Acid- Alcohol, 1%	
E - 312 - 5	Ammonia Water, 0.3%	

* denotes extra hazard charge

MUCOSUBSTANCE STAINS

PRODUCT NO.	STAINING METHOD/REAGENTS	
	MUCICARMINE WITH HEMATOXYLIN AND METANIL YELLOW <i>Mallory (1961) Masson (1923)</i>	Mucin and cryptococcus
* E - 320 - 1	Mucicarmine Stock	
E - 320 - 2	Metanil Yellow, 0.25%	
* E - 320 - 3	Weigert's Iron Hematoxylin A &	
E - 320 - 4	Weigert's Iron Hematoxylin B	
	MODIFICATION OF MAYER'S MUCIHEMATEIN <i>Lillie (1965) Laskey (1950)</i>	Mucins, especially those derived from epithelial cells of glandular tissue
E - 321 - 1	Mayer's Mucihematein, Modified	
	JOHNSON'S TOLUIDINE BLUE O METHOD FOR METACHROMASIA	
E - 322 - 1	Toluidine Blue Solution, 0.1%, Aqueous	
	ALCIAN BLUE METHOD (pH 2.5) <i>Lev and Spicer (1964)</i>	Weakly acidic sulfated mucosubstances, hyaluronic acid and sialomucins
E - 323 - 1	Alcian Blue, 1% - pH 2.5	
E - 323 - 2	Nuclear Fast Red (Kernechtrot) Solution	
E - 323 - 3	Acetic Acid, 3%, Aqueous	
	ALCIAN BLUE METHOD (pH 1.0) <i>Lev and Spicer (1964)</i>	Strongly sulfated mucosubstances
E - 324 - 1	Alcian Blue Solution, - pH 1.0	
	ALCIAN BLUE METHOD (pH 0.4) <i>Johnson, Graham, and Helwig (1964)</i>	Strongly acidic sulfated mucosubstances
E - 325 - 1	Alcian Blue Solution, - pH 0.4	
E - 325 - 2	Nuclear Fast Red (Kernechtrot) Solution	
E - 325 - 3	Phosphate-Hydrochloric Acid Solution	
	ALDEHYDE FUCHSIN METHOD FOR MUCOSUBSTANCES <i>Spicer and Meyer (1960)</i>	Sulfated mucosubstances, sialomucins, hyaluronic acid, etc.
* E - 326 - 1	Aldehyde Fuchsin Solution - pH 1.7	
* E - 326 - 2	Reagent Alcohol, 70%	
	ALDEHYDE FUCHSIN - ALCIAN BLUE METHOD <i>Spicer and Meyer (1960)</i>	Sulfated and non-sulfated acidic mucosubstances
E - 327 - 1	Alcian Blue - 0.2%	
* E - 327 - 2	Aldehyde Fuchsin Solution - pH 1.7	
* E - 327 - 3	Reagent Alcohol, 70%	
	ALDEHYDE FUCHSIN METHOD - pH 1.0 <i>Johnson, Graham, and Helwig (1964)</i>	Highly acid sulfated mucosubstances
* E - 328 - 1	Aldehyde Fuchsin Solution - pH 1.0	
E - 328 - 2	Metanil Yellow Solution, 0.25%	
* E - 328 - 3	Alcohol Solution, 80% - pH 1.0	

* denotes extra hazard charge

PRODUCT NO.	STAINING METHOD/REAGENTS
	MODIFICATION OF MOWRY'S 1958 COLLOIDAL IRON STAIN FOR ACID MUCOPOLYSACCHARIDES
E - 329 - 2	Muller's Colloidal Iron Oxide Stock Solution
E - 329 - 3	Van Gieson's Solution
E - 329 - 4	Potassium Ferrocyanide, 5%, Aqueous
*E - 329 - 5	Hydrochloric Acid, 5%
E - 329 - 6	Acetic Acid, 12%, Aqueous
	Acidic mucopolysaccharides and acidic epithelial mucins
	PAS-ALCIAN METHOD FOR MUCOSUBSTANCES - pH 2.5 OR 1.0 <i>Lev and Spicer (1964)</i>
E - 330 - 1	Periodic Acid, 1%, Aqueous
E - 330 - 2	Schiff's Reagent <i>Refrigerate!</i>
E - 330 - 3	Alcian Blue Solution - pH 2.5 OR
E - 330 - 3A	Alcian Blue Solution - pH 1.0
E - 330 - 4	Sodium Metabisulfite, 0.5%, Aqueous
	Sulfated and strongly acidic sulfated mucosaccharides

DIGESTION METHODS

PRODUCT NO.	STAINING METHOD/REAGENTS
	DIASTASE DIGESTION METHOD
E - 340 - 1	Diastase Powder
E - 340 - 2	Phosphate Buffer - pH 6.0
	HYALURONIDASE DIGESTION METHOD
E - 341 - 1	Testicular Hyaluronidase
E - 341 - 2	Phosphate Buffer, 0.1M
	Selective elimination of staining due to hyaluronic acid, etc.

* denotes extra hazard charge