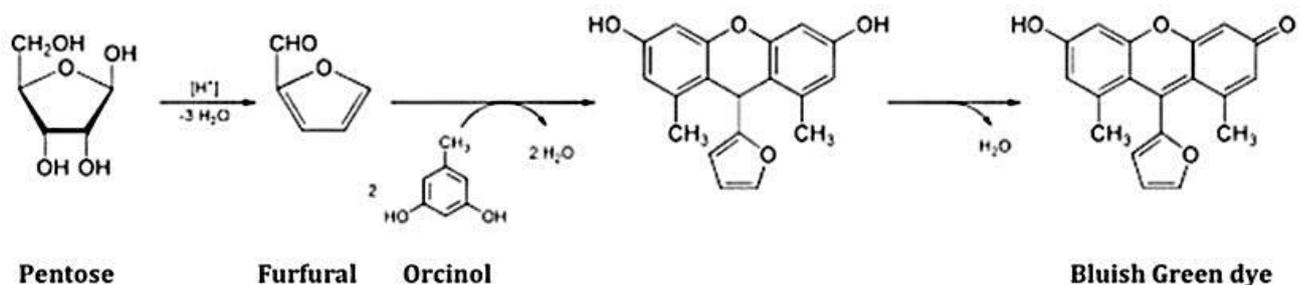


الصيدلة	الكلية
فرع العلوم المختبرية والسريرية	القسم
Biochemistry	المادة باللغة الانجليزية
الكيمياء الحياتية	المادة باللغة العربية
الثالثة	المرحلة الدراسية
م م اسامة حامد عبدالله	اسم التدريسي
Bial Test	عنوان المحاضرة باللغة الانجليزية
كشف بيال	عنوان المحاضرة باللغة العربية
7	رقم المحاضرة
1. Abousalah, K. and Alnaser, A., 1996, Principles of Practical Biochemistry. 2. Farid Shokry Ataya, 2007, Practical Biochemistry. AlRoshd Publisher, Riyadh, Saudi Arabia. 3. Milio, F. R. and Loffredo, W. M., 1995, Qualitative Testing for Amino Acids and Proteins, Modular Laboratory Program in	المصادر والمراجع



➤ Bial Test

- This test distinguishes between two closely related in chemical composition such as pentoses monosaccharides (ribose, arabinose), and hexoses monosaccharides (glucose, fructose).
- Bial reagent consists of orcinol in the presence of ferric ions.
- When a solution of pentose sugar is heated with conc. HCL for a short time, $3\text{H}_2\text{O}$ removed and furfural is formed. This intermediate in turn reacts with Bial reagent, forming a complex with a blue-green color. However, if a solution of hexose sugar is heated with a strong acid, a hydroxymethylfurfural is formed. This compound in turn reacts with Bial reagent, producing a complex with a bright brown color.



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➤ Method

To 1mL of 1% Sugar sample in a test tube, add 1mL of Bial reagent, mix gently, and keep it in a water bath for 10min.

Sample	Observation	Inference
Sugar sample	Blue-green color in case of pentose, and brown color in case of hexose	Pentose only respond

