Pisum sativum po’stlog’i pektin moddalarining biologik faolliklarini PASS (online) dasturida tekshirish

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Annotatsiya: Hozirgi kunda yangi modda sintez qilish bilan birga uning biologik faolligini o’rganish ham davr talabi hisoblanadi. Ushbu izlanishimizda PASS online dasturi yordamida pektinning ayrim biologik faolliklarini o’rganish natijalari keltirilgan.

Kalit so'zlar: Pektin, biologik faollik, PASS online, in vitro, in vivo, kasallik, parametr.

Testing the biological activity of pectin in the bark of Pisum sativum in PASS (online)

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Abstract: Nowadays, in addition to synthesizing a new substance, studying its biological activity is also a requirement of the time. This study presents the results of a study of some of the biological activities of pectin using the PASS online program.

Keywords: Pectin, biological activity, PASS online, in vitro, in vivo, disease, parameter.

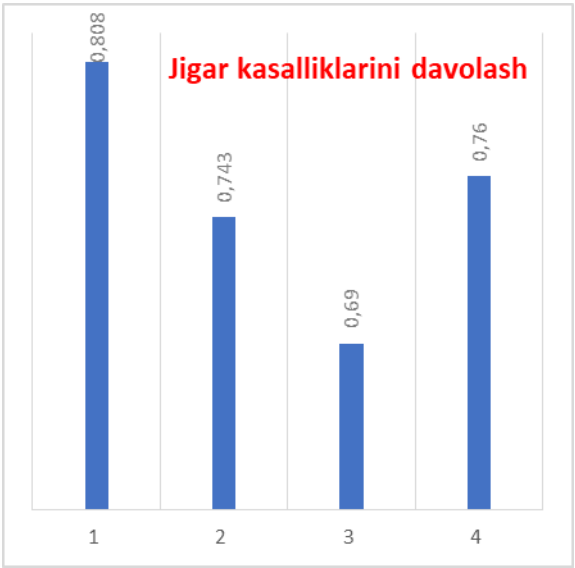
Kirish

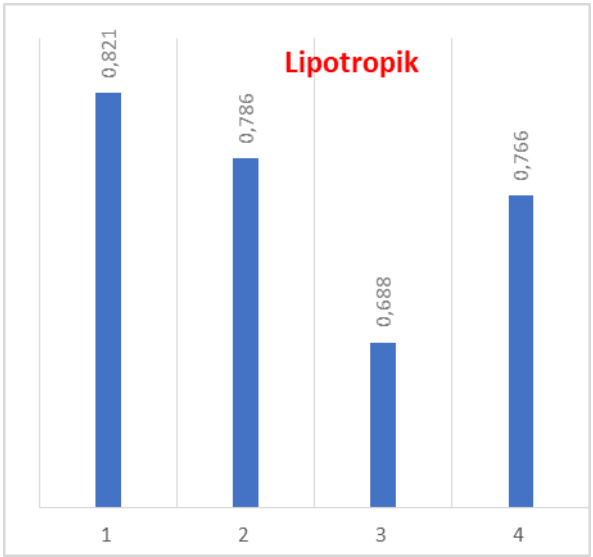
PASS dasturining muhim axamiyati shundaki bu dastur yordamida ko’p sonli birikmalarni bir vaqtda testdan o’tkazish, qimmatbaxo reaktivlarni tejash, reagentlar isrofining oldini olish , vaqt nuqtai nazardan ilmiy ishlar tezligini va samaradorligini oshirish imkoniyatini yaratiladi. Xozirgi vaqtda dunyoning rivojlangan davlatlari ilmiy laboratoriyalari olimlari “struktura - biologik faollik “ tamoili ostidagi nazariy hisob - kitoblar orqali yangi moddalar sintezi ustida samarali ishlar olib borilmoqda [1-2]. PASS online dasturi yordamida moddani strukturasidan kelib chiqib biologik faolligini bashorat qilish mumkin. Bunda modda uchun Pa qiymat ayni kasallikka

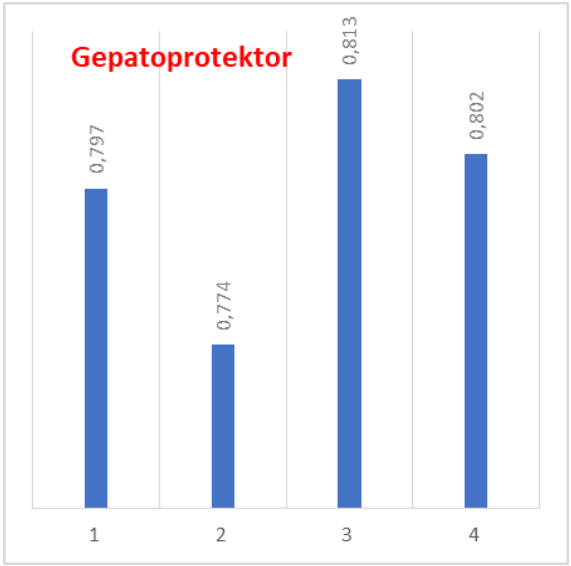
nisbatan farmakologik faollik bo'lsa, Pi qiymat esa shu kasallikka nisbatan farmakologik faol emas ko'rsatkichi qiymati hisoblanadi [3]. Pa>0,71 bo'lsagina modda berilgan kasalliklarga nisbatan farmakologik faolligi yuqori bo'lish ehtimoli yuqori bo'ladi. Bundan tashqari reaksiya o'tkazmasdan turib, boshlang'ich moddalardan hosil bo'lishi mumkin bo'lgan moddaning biologik faolliklarini bilib olish mumkin [4-6].

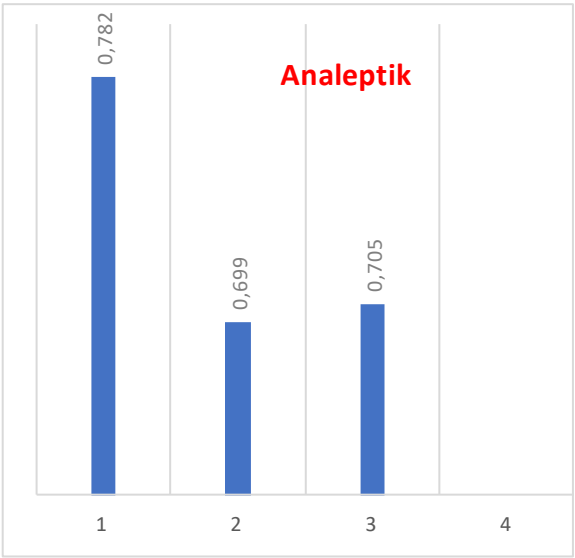
Olingan natijalar tahlili

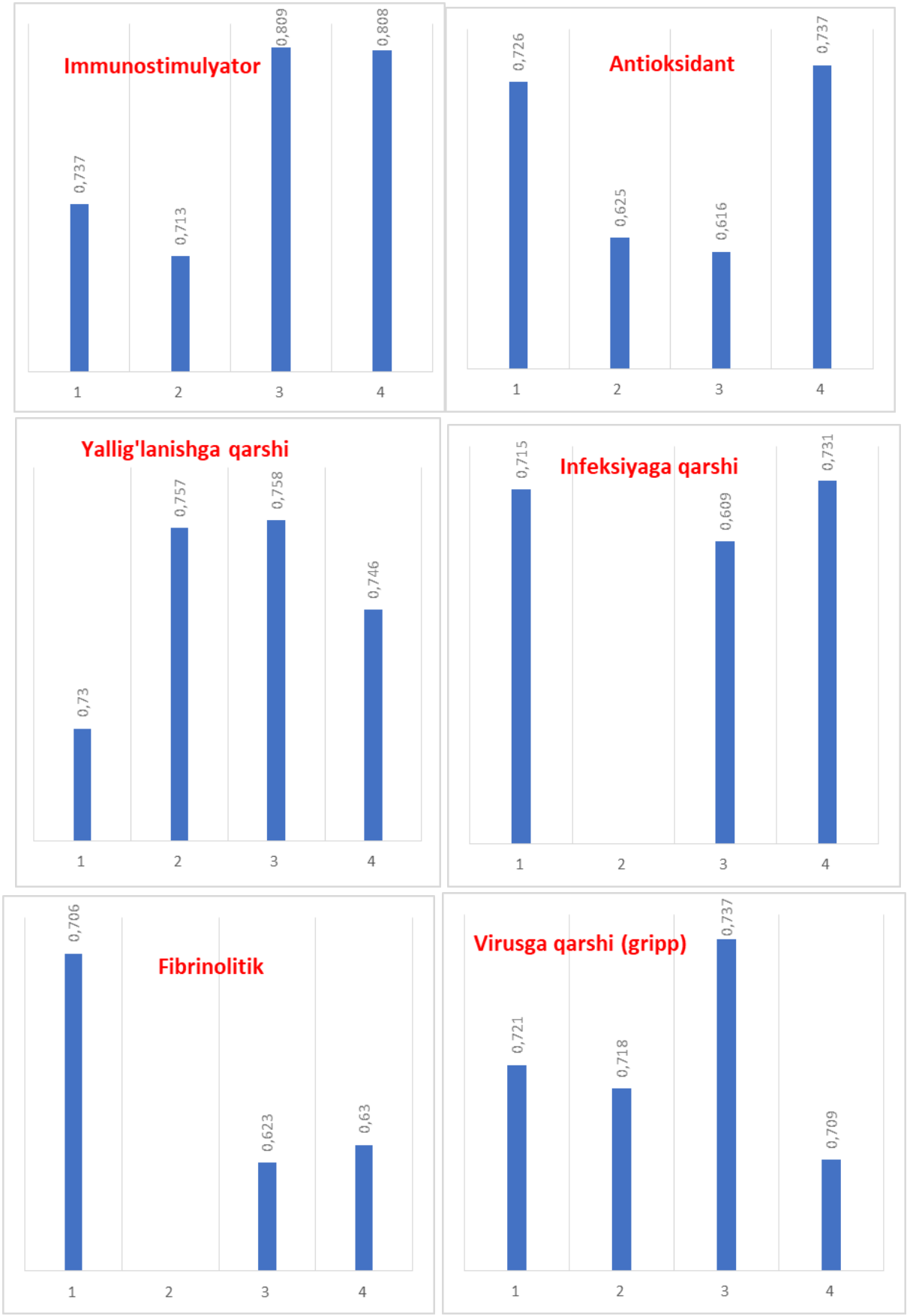
Olingan natijalar tahlili vaqtida pektinning xosilalari turli biologik faollikka ega ekanligi aniqlandi. Bunda turli birikmalarda bir xildagi faollik ustunlik qiladi. Bu ularning kimyoviy tuzulishi bilan bog'liq. PASS online dasturi ma'lumotlariga nazar solsak, pektin va uning xosilalarida antoganistlik xossalari yuqori ekanligini ko'rishimiz mumkin.











1-rasm. Pektin va uning ba'zi xosilalarining PASS (online) dasturida hisoblangan farmakologik faolliklari

Ushbu hisoblashni olib borish jarayonida pektin hamda solishtirish uchun olingan uning xosilalari quyidagi namunalardan iborat: (tekshirilgan moddalar)

1. D-galakturon kislota
2. D-galakturon kislota metil efiri
3. Gidropektin (II)
4. Pektin (poligalakturon kislota)

Bashorat natijalari pektinning xosilalarini *in vitro* va *in vivo* sistemalarda tajriba izlanishlarini rejalashtirishda ishlatilishi mumkin. Pektin va uning hosilalarining farmakologik faolligi juda keng hisoblanadi. Hisoblash natijalari yordamida olingan ma’lumotlar asosida jigar kasalliklarni davolashda, analeptiklik xususiyati, fibrinolitik, infeksiyaga qarshi faolligi, lipotropik kasalikka yuqori faollikni D-galakturon kislota, gepatoprotektor, virusga qarshi(gripp), yallig’lanishga qarshi hamda immunostimulyatorlikka kuchli faollikni gidropektin (II), infeksiyaga qarshi faollikka, antioksidantlikka va immunostimulyatorlikka yuqori faollikni pektin (poligalakturon kislota)si namoyon qildi. Shuningdek ba’zi pektin xosilasi bo’lgan birikmalar ma’lum kasalliklarga qarshi faollikni namoyon qilmasligi aniqlandi, masalan D-galakturon kislota metil efiri infeksiyaga qarshi faollikda hamda fibrinolitiklikda umuman faollikka ega emas. Pektin (poligalakturon kislota) esa analeptiklikka faollikni namoyon qilmadi.

Tajriba qism

Pektinning ba'zi biologik faolliklari PASS on-line dasturi asosida o'rganildi. Tadqiqot predmeti sifatida D-galakturon kislota, D-galakturon kislota metil efiri, gidropektin (II), pektin (poligalakturon kislota) lar tanlab olindi.

Xulosa

Moddalarning biologik faolligini bashorat qiluvchi maxsus bo’limlar mavjud bo’lib, ular bergan xulosa orqali ma’lum bir kasallikka qarshi biologik faol dori vositasi sintez qilinadi. Online rejimda maxsus kompyuter dasturlari yordamida sintez qilingan moddalarning ba’zi bir biologik faolliklarini aniqlash maqsadida fizik-kimyoviy va boshqa parametrlari hisoblab topildi.

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