

OLIVELLAax™

Hippophae rhamnoides L. - Dry extract standardized in isorhamnetin

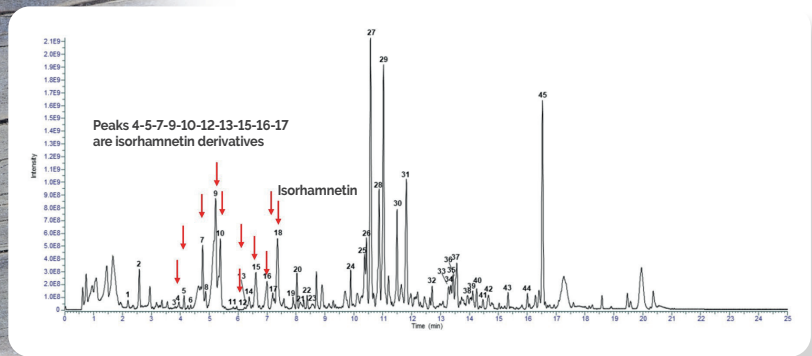
Sea buckthorn fruits have been traditionally used as a purgative since the 16th century*



The extract shows a **very rich phytocomplex**; 75 compounds have been detected by chromatographic technique (UHPLC-HRMS/MS) including:

- flavonoids,
- phenolic acids,
- proanthocyanidins,
- carotenoids,
- triterpenoids.

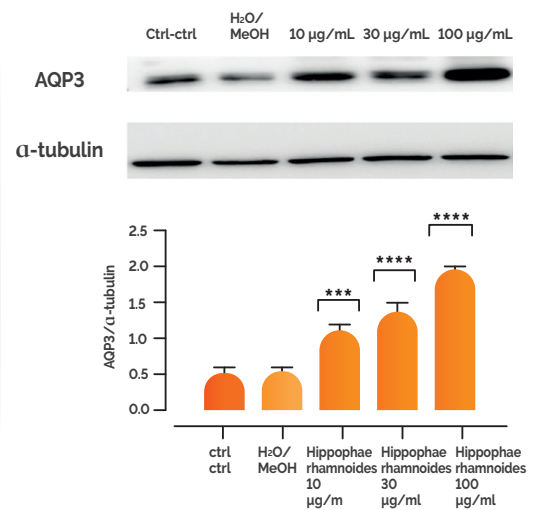
Sea buckthorn fruit also contains **mannitol**.



Sea buckthorn extract up-regulates the **proteic expression of AQP3** (aquaporin 3) in colon-rectal adenocarcinoma epithelial (HT-29) cells, suggesting that the extract may **improve the passage of water into the gut lumen compared to control**, with a mechanism of action similar to **osmotic laxatives**.



Laxative and prokinetic effects of sea buckthorn have also been demonstrated *in vivo* through partial activation of **muscarinic receptors**; on the other hand, the presence of **inhibitory phytochemicals** could **avoid the typical adverse effects** (abdominal cramps) of **parasympathomimetic drugs**.**



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*Campanini E., 2006
** Hanif M. et al., 2019

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Hippophae rhamnoides L. - Estratto secco standardizzato in isoramnetina

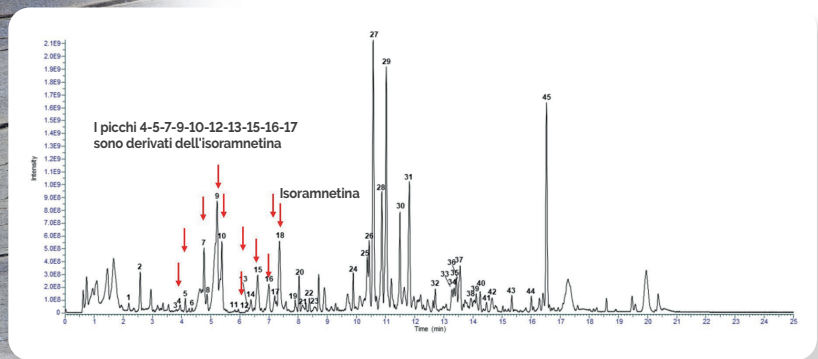
I frutti di olivello spinoso sono noti fin dal XVI secolo come purgativi*



L'estratto mostra un **fitocomplesso molto ricco**; ben 75 composti sono stati rilevati mediante tecnica cromatografica (UHPLC-HRMS/MS) tra cui:

- flavonoidi,
- acidi fenolici,
- proantocianidine,
- carotenoidi,
- triterpenoidi.

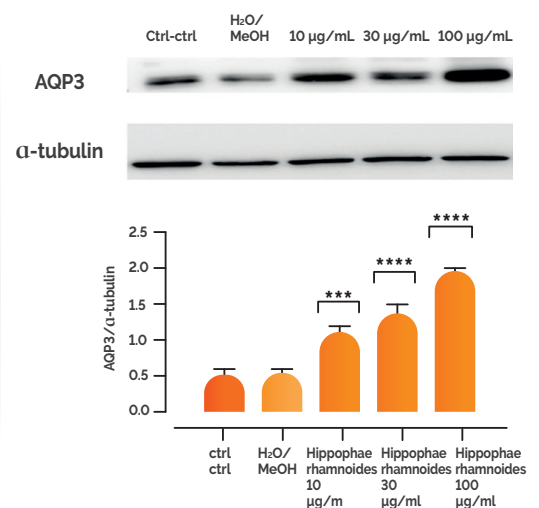
Sea buckthorn fruit also contains **mannitol**.



L'estratto di olivello spinoso up-regola l'espressione **proteica delle AQP3** (acquaporine 3) in cellule di adenocarcinoma del colon-retto (HT-29) rispetto al controllo, suggerendo che l'estratto possa **aumentare il passaggio di acqua nel lume intestinale**, con un meccanismo d'azione simile ai **lassativi osmotici**.



Gli effetti lassativi e procinetici dell'olivello spinoso sono stati dimostrati anche *in vivo* attraverso l'attivazione parziale dei **recettori muscarinici**; d'altra parte, la presenza di **sostanze fitochimiche inibitorie potrebbe evitare gli effetti avversi tipici dei farmaci parasimpaticomimetici**.



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*Campanini E., 2006
** Hanif M. et al., 2019