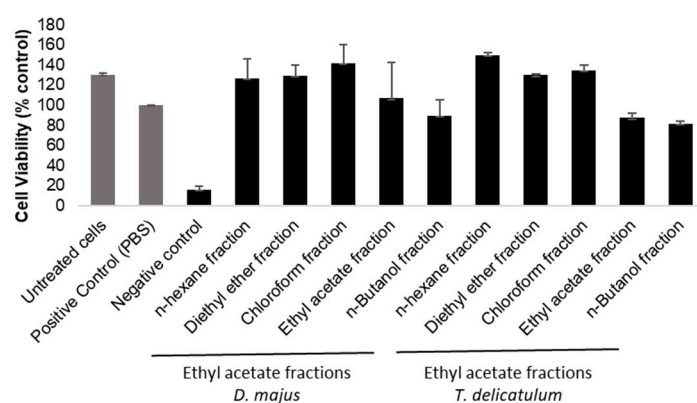


Supplementary Material

A



B

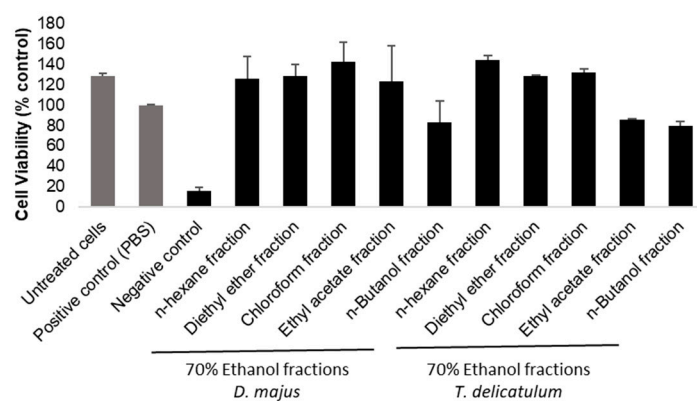


Figure S1. Effect of 70% ethanol and ethyl acetate derived fractions on the viability of RAW 264.7 cells determined by MTT assay. **A)** Ethyl acetate derived fractions from *D. majus* and *T. delicatulum* and **B)** 70% ethanol derived fractions from *D. majus* and *T. delicatulum*. Cells were treated with 10 $\mu\text{g/mL}$ of fractions for 24 h. Data represent mean \pm standard deviation ($n= 2-3$) and values are normalized on control (PBS). Negative control (10% DMSO).

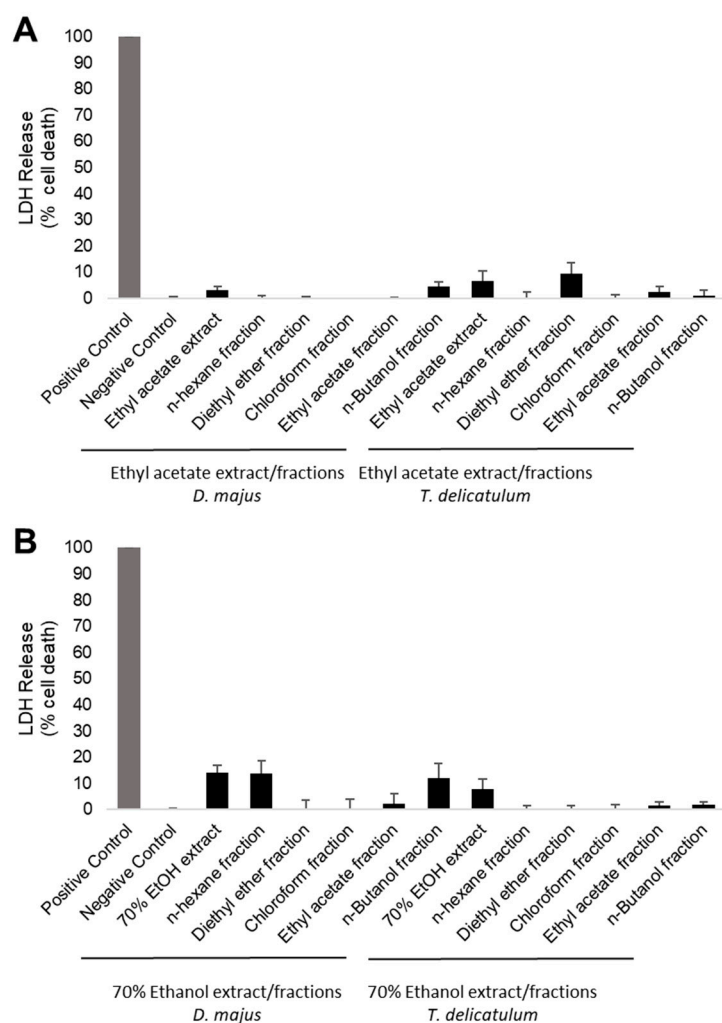


Figure S2. Cell death assessed by lactate dehydrogenase (LDH) release assay after treatment with bioactive whole extracts and derived fractions. **A)** Ethyl acetate extracts and derived fractions of *D. majus* and *T. delicatulum*. **B)** 70% ethanol extracts and derived fractions of *D. majus* and *T. delicatulum*. Cells were treated with 10 $\mu\text{g/mL}$ of extracts/fractions for 24 h. Data represent mean \pm standard deviation ($n= 2-3$). Positive control (no treated lyzed cells) and negative control (0.1 % DMSO). The tested extracts/fractions revealed significant difference (P -values < 0.05 , calculated with ANOVA).

Table S1. List of species screened for anti-inflammatory activity and information on collection area.

Group of bryophytes	Family	Species	Country- collection place	GPS coordinates		Date of collection	
				Latitude	Longitude		
Mosses							
	Amblystegiaceae	<i>Warnstorfia fluitans</i> (Hedw.) Loeske	Iceland	64.14197491	-20.23437432	12 June 2019	
	Bartramiaceae	<i>Philonotis fontana</i> (Hedw.) Brid.	Iceland	64.14389823	-20.22702004	12 June 2019	
	Brachytheciaceae	<i>Brachythecium rutabulum</i> (Hedw.) Schimp.	Germany, Black Forest	47.917959	8.075349	28 April 2018	
		<i>Cirriphyllum crassinervium</i> (Taylor) Loeske & M. Fleisch.	Denmark, Rude Skov	55.84145	12.47838	24-25 2018	October

	<i>Homalothecium lutescens</i> (Hedw.) H. Rob.	Sweden	55.7168043	13.7214639	10 September 2019
	<i>Homalothecium sericeum</i> (Hedw.) Schimp.	Germany, Black Forest	47.917733	8.075181	28 April 2018
	<i>Kindbergia praelonga</i> (Hedw.) Ochyra	Moss provider (Bryoflor, Paris, France)	-	-	Purchased on 20 February 2019
Bryaceae	<i>Bryum pseudotriquetrum</i> (Hedw.) P. Gaertn., B. Mey. & Scherb.	Germany, Black Forest	47.912221	8.081158	28 April 2018
Dicranaceae	<i>Dicranum majus</i> Turner	Sweden	56.02397	13.13074	27 October 2018

		<i>Dicranum scoparium</i> Hedw.	Denmark, Rude Skov	55.84072	12.47253	24-25 October 2018
<i>Grimmiaceae</i>		<i>Racomitrium aciculare</i> (Hedw.) Brid.	Germany, Black Forest	47.910660	8.093621	28 April 2018
		<i>Racomitrium elongatum</i> Ehrh. ex Frisvoll	Sweden	55.7264294	13.70606602	10 September 2019
<i>Hedwigiaceae</i>		<i>Hedwigia ciliata</i> (Hedw.) P. Beauv.	Moss provider (Bryoflor, Paris, France)	-		Purchased on 20 February 2019
<i>Hylocomiaceae</i>		<i>Hylocomium splendens</i> (Hedw.) Schimp.	Sweden	55.7223757	13.7066895	10 September 2019

	<i>Rhytidiadelphus loreus</i> (Hedw.) Warnst.	Germany, Black Forest	47.911177	8.092482	28 April 2018	
	<i>Rhytidiadelphus squarrosus</i> (Hedw.) Warnst.	Denmark, Rude Skov	55.84071	12.47371	24-25 2018	October
	<i>Rhytidiadelphus triquetrus</i> (Hedw.) Warnst.	Iceland	64.32743787	-20.28594921	13 June 2019	
	<i>Rhytidiadelphus triquetrus</i> (Hedw.) Warnst.	Sweden	55.721833	13.7021155	10 2019	September
Hypnaceae	<i>Hypnum cupressiforme</i> Hedw.	Denmark, Rude Skov	55.84201	12.4748	24-25 2018	October

Leucobryaceae	<i>Campylopus introflexus</i> (Hedw.) Brid.	Moss provider (Bryoflor, Paris, France)	-	-	Purchased on 20 February 2019	
Mniaceae	<i>Mnium hornum</i> Hedw.	Denmark, Rude Skov	55.84161	12.47275	24-25 2018	October
	<i>Plagiomnium undulatum</i> (Hedw.) T.J. Kop.	Sweden	55.72548924	13.7051406	10 2019	September
Neckeraceae	<i>Thamnobryum alopecurum</i> (Hedw.) Nieuwl. ex Gangulee	Germany, Black Forest	47.917927	8.074989	28 April 2018	
Plagiotheciaceae	<i>Plagiothecium undulatum</i> (Hedw.) Schimp.	Denmark, Rude Skov	55.84915	12.4582	24-25 2018	October

Polytrichaceae	<i>Polytrichum formosum</i> Hedw.	Germany, Black Forest	47.911223	8.092431	28 April 2018	
Pylaisiaceae	<i>Calliergonella cuspidata</i> (Hedw.) Loeske	Denmark, Rude Skov	55.84113	12.48188	24-25 2018	October
	<i>Ptilium crista-castrensis</i> (Hedw.) De Not.	Germany, Black Forest	47.911766	8.089162	28 April 2018	
Sphagnaceae	<i>Sphagnum fimbriatum</i> Wilson	Denmark, Rude Skov	55.84098	12.47348	24-25 2018	October
	<i>Sphagnum teres</i> (Schimp.) Ångström	Iceland	64.32743787	-20.28594921	13 June 2019	

	Thuidiaceae	<i>Thuidium delicatulum</i> (Hedw.) Schimp.	Sweden	56.02422	13.12932	27 October 2018
Liverworts						
	Plagiochilaceae	<i>Plagiochila asplenioides</i> (L.) Dumort.	Germany, Black Forest	47.917927	8.074989	28 April 2018
	Lepidoziaceae	<i>Bazzania trilobata</i> (L.) Gray	Germany, Black Forest	47.911223	8.092431	28 April 2018
	Metzgeriaceae	<i>Metzgeria furcata</i> (L.) Corda	Denmark, Rude Skov	55.84182	12.47596	24-25 2018 October