

## Supplementary Materials

**Table S1.** The main active ingredients and anti-fatigue mechanism of high-altitude plants.

No.	Latin Name	Main Active Ingredients	Traditional Use	Mechanism of Anti-Fatigue Activity
1	<i>Rhodiola rosea</i> L.	Salidroside [9]	Alleviate fatigue, depression, and cognitive dysfunction [67]	Neuroprotection [67,68], scavenging free radicals, antioxidation [69]
2	<i>Brassica rapa</i> L.	Polysaccharides [70]	Tonic and anti-hypoxia, heat-clearing and detoxification, alleviating fatigue [50]	Removal of accumulated metabolites [71], antioxidation [55]
3	<i>Crocus sativus</i> L.	Cordycepin [12]	Neurodegeneration or metabolic diseases [72]	Anti-inflammatory and antioxidation [10]
4	<i>Lepidium meyenii</i> W.	Polysaccharides [4], macaenes, macamides [10]	Increase fertility [73]	Removal of accumulated metabolites, improvement of energy metabolism [74]
5	<i>Hippophaerhamnoides</i> L.	Polysaccharides [5], flavonol glycosides [75]	Alleviate fatigue caused by oxygen deficiency [5]	Antioxidation [76]
6	<i>Saussurea involucrata</i> Sch.-Bip.	Acacetin, hispidulin, and rutin [77,45]	Alleviate pain and inflammatory [78]	Scavenge free radicals [79], antioxidation [80]
7	<i>Cordyceps sinensis</i> Sacc.	Polysaccharides [81], crocin [13], Flavones, neo-Clerodane diterpenes [83]	Prevention of anemia, physical weakness	Increase storage of energy, antioxidation [82]
8	<i>Ajuga ciliata</i> Bunge	Shikonin, polysaccharide	Swelling, rheumatic pain, and traumatic injury	Anti-inflammatory [84]
9	<i>Arnebia euchroma</i> Johnst.	Lignan	Antitumor, immunomodulatory [85]	Scavenge free radicals [86], antioxidation [87]
10	<i>Anthriscus sylvestris</i> Hoffm. Gen	Saponins, polysaccharides and lectins [89]	Antitumor, anti-inflammatory [88]	Anti-inflammatory [88]
11	<i>Polygonatum kingianum</i>	Triterpenoids	Diabetes, fatigue, feebleness, indigestion [89].	Promote energy metabolism and antioxidation ability [90]
12	<i>Cimicifuga foetida</i> L.	Triterpenoids [92]	Perimenopausal symptoms [91]	Neuroprotection [91]
13	<i>Stachyurus himalaicus</i> var. <i>himalaicus</i> Hook. f. et Thoms. ex Benth	Flavonoid glycosides [94], anthocyanins [95]	Galactopoietic, diuretic, dropsy and gonorrhea [93]	Antioxidation and anti-inflammatory
14	<i>Camellia reticulata</i> Lindl.	Saponins	Heat-clearing, damp-draining, blood-cooling, and detoxifying	Scavenge free radicals [96]
15	<i>Pedicularis longiflora</i> var. <i>tubiformis</i>		Leucorrhoea, fevers, sterility, rheumatism, general debility, collapse, urinary problems [97]	Antioxidation [98]

**References follow the main text**