

CANNABINOIDS AND TERPENES IN CANNABIS

ChromaDex welcomes two cannabinoid reference standards derived from Hemp, for laboratory use in the identification and qualification of these compounds and R&D work: Cannabidiol (CBD) and Cannabidivarin (CBD-V).

CANNABINOIDS

Cannabinoids are a class of diverse chemical compounds that act on the cannabinoid receptors, which are part of the endocannabinoid system. These receptor proteins include the endocannabinoids produced naturally in the body, as well as the phytocannabinoids,



found in cannabis. Phytocannabinoids are naturally occurring compounds found in the trichomes (resin glands) of the Cannabis sativa species. There are at least 113 different phytocannabinoids isolated from cannabis, their ability to interact directly with cannabinoid receptors located throughout the central nervous system, allows for a wide range of therapeutic potential¹.

TERPENES

Terpenes are a large and diverse group of organic compounds produced by a variety of plants, particularly conifers². Plants with terpenes often have a strong odor, thought to be used as a deterrent against being consumed by herbivores³. Research and interest in cannabis-based terpenes has grown since they are known to contribute & complement the physiological effects of cannabis. Some research has suggested that they are most effective



when working together with cannabinoids - resulting in the entourage effect⁴. Therefore, terpenes may play an equally important role when it comes to studying the vast amount of therapeutic potential of the Cannabis sativa plant.

| CANNABINOIDS (NEW) | |
|--------------------|------------------|
| Compound | Part Number |
| Cannabidiol | ASB-00001454-010 |
| Cannabidivarin | ASB-00001453-005 |

| TERPENES | | |
|---------------------|------------------|--|
| Compound | Part Number | |
| (-)-a-Bisabolol | ASB-00002292-001 | |
| a-Pinene | ASB-00016836-001 | |
| Borneol | ASB-00002356-001 | |
| ß-Caryophyllene | ASB-00003250-001 | |
| Geraniol | ASB-00007150-001 | |
| a-Humulene | ASB-00008333-001 | |
| Terpinolene | ASB-00020106-001 | |
| Valencene | ASB-00022050-001 | |
| Menthol | ASB-00013968-001 | |
| Nerolidol | ASB-00014293-001 | |
| Carmphene | ASB-00003078-001 | |
| Cineole/Eucalyptol | ASB-00005375-001 | |
| (-)-a-Cedrene | ASB-00003332-100 | |
| Camphor | ASB-00003077-001 | |
| Isopulegol | ASB-00009500-100 | |
| Sabinene Hydrate | ASB-00019002-100 | |
| a-Terpinene | ASB-00020100-001 | |
| y-Terpinene | ASB-00020101-001 | |
| Linalool | ASB-00012220-001 | |
| Mycrene | ASB-00013918-001 | |
| Caryophyllene Oxide | ASB-00003251-100 | |
| a-Terpineol | ASB-00020105-001 | |
| (R)-(+)-Pulegone | ASB-00016405-100 | |
| Geranyl acetate | ASB-00007152-100 | |
| Citronellol | ASB-00003668-100 | |
| p-Cymene | ASB-00003987-001 | |
| Guaiol | ASB-00007078-010 | |
| Isoborneol | ASB-00009195-001 | |
| trans-ß-Farnesene | ASB-00006002-001 | |
| Nerol | ASB-00014290-001 | |

These reference standards are for laboratory use only, not for human consumption.

REFERENCES

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- 2. Breitmaier, E., Terpenes: Flavors, Fragrances, Pharmaca, Pheromones. 2006: Wiley-VCH Verlag GmbH & Co KGaA.
- 3. Martin, D.M., J. Gershenzon, and J. Bohlmann, Induction of volatile terpene biosynthesis and diurnal emission by methyl jasmonate in foliage of Norway spruce. Plant Physiol, 2003. 132(3): p. 1586-99.
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